

INTERSTATE MEDICAL JOURNAL.

VOL. IX.

NOVEMBER, 1902.

NO. 11.

ORIGINAL ARTICLES.

THE ENLARGEMENT OF THE PELVIC OUTLET DURING LABOR.

BY DR. JULIUS NEUMANN, of Vienna, Austria,

DOCENT OF OBSTETRICS AND GYNECOLOGY, UNIVERSITY OF VIENNA.

The bony pelvis does not represent a fixed cavity of constant and invariable dimensions.

It is generally known that the motility of the os coevis alters the length of the conjugate of the anatomical outlet considerably, and that a slight rotation of the sacrum in the Walcher posture increases the length of the true conjugate. This latter fact especially is frequently applied to practice by the modern obstetrician.

An unusually marked motility of the pelvic articulations has been observed in some instances, especially in kyphotic pelvises. Korsch (*Archiv fuer Gynaek.*, vol. xix, p. 475) described a case in which he noted during labor an increase of fully three cm. (from six and one-half cm. to nine and one-half cm.) of the transverse diameter of the outlet. He found at the post-mortem of this case a remarkable mobility in all the pelvic joints.

I began as early as 1895 in Professor Schauta's clinic to measure pelvises during labor after the method of Breisky. So far as I know, I was the first to find that during labor not only the transverse diameter of the outlet, but also the sacro-pubic diameter may be enlarged and that this occurrence is not limited to kyphotic pelvises.

This conclusion was based upon the results of repeated measurements made in nine cases. The formations of these pelvises were as follows: Four idiopathic funnel-shaped pelvises, one flat rachitic pelvis without contraction in the transverse diameters, two generally contracted flat rachitic pelvises, one pelvis of the juvenile type and one of about normal dimensions. Of all these pelvises with one exception the inlet was only slightly contracted or normal, while the transverse diameters of the outlet varied between eight and ten and a half cm., the sacro-pubic diameters between eight and ten cm.

All children were born in O. A. position, six spontaneously, three with the help of the forceps. They were all alive and their weight ranged from 2200 to 3750 grams.

An enlargement of the transverse diameters of the outlet during labor was observed in every case, the maximum being, in one case, two and a half cm. The enlargement could be noted as soon as the fetal head entered the pelvic cavity. In six of these cases an increase could be observed also in the length of

the conjugate of the obstetrical outlet—*i. e.*, of the sacro-pubic diameter—being in one case fully two cm.

I wish to emphasize that I do not believe that this expansion is a typical occurrence during the stage of expulsion. I was able to determine the absence of such an enlargement of the transverse diameters in several cases, and of the conjugate of the obstetrical outlet in one instance.

I wish to report however merely my observations. While unable to give even an approximate figure of the frequency of such an enlargement, I may say that I found a certain mutability in the dimensions of the inferior pelvic straits quite often. The number of these observations being limited, I am not ready to say whether this mobility is more pronounced in certain forms of pelvic deformities, whether it is dependent on the general condition of the skeleton, on the age of the patient, or possibly on the number of preceding confinements. One thing, however, is certain: if the child's head is small or soft this enlargement does not take place.

It may be appropriate to emphasize that in none of these cases a rupture of the pelvic articulations occurred, and that every one of these patients left the bed in due time without showing any disturbance in locomotion.

In all probability this enlargement is produced by the force of the descending head, the pelvic articulations having been unusually relaxed and lessened during pregnancy.

The theory of the increase of the bony pelvis during labor originated with Hippocrates. It was later repudiated and forgotten, because there were no means to prove it. As late as 1870 Breisky published a method of measuring the pelvic outlet, which yields very satisfactory results. Since this time, investigations as regards the change of the bony pelvis have been conducted by some authorities, but with the exception of those made on kyphotic pelvises, as mentioned above, they have been limited to cadavers. So far as I am aware, I was the first who endeavored to test Hippocrates' theory by means of systematic examinations of the living.

The questions which will have to be answered are the following: 1. In what percentage of cases does this enlargement of the dimensions of the obstetrical outlet take place? 2. How great can it be? 3. What conditions favor this phenomenon? 4. What effect does this increase or a complete absence of such exert on the mechanism, course and management of labor?

I do not doubt that these questions can be satisfactorily answered if such measurements are executed more extensively and more general use is made of examinations by means of the X-rays.

In the management of labor to-day we take into account the moulding of the head, the increase of the pubo-coccygeal diameter and of the true conjugate in the Walcher posture; at some future time we may have learned to put to practical use this enlargement of the sacro-pubic and the transverse diameter of the pelvic outlet.

CARDIAC DILATATION AT PUBERTY.

BY ALFRED FRIEDLANDER, M. D., of Cincinnati.

The period of puberty is one marked by great developmental changes in the individual, mental, muscular and sexual. For the cardio-vascular system this is a most important transition period. Growth is especially active here, a growth demanded by the increase of physiological function of the various organs.

During the earlier years of life the increase of weight of the heart, though steady, is not very rapid. Beneke has shown that from the sixth to the thirteenth year the annual increase is only about eight per cent. At the time of puberty, however, the rapidity of growth becomes much greater. Thus if we compare the volume of the heart to the width of the ascending aorta, we find that before puberty the ratio is approximately 140:50; after puberty, 290:61. In other words, the blood pressure is much higher after puberty than before.

Broadly stated, the tissues grow more vigorously, respond more readily to stimulation in childhood and early adolescence than in later life. But, per contra, the tissues of the young individual are more yielding, more apt to give way under strain than is the case in maturity. Therefore, if additional demands are made upon the heart of the growing child, hypertrophy—a physiological hypertrophy—will the more easily ensue. But for the same reasons, if the strain and the demands upon the muscular power of the heart be too great, dilatation will the more easily occur.

It is thus apparent that at the time of puberty the heart is in a condition of what might be called unstable equilibrium. The other organs of the body are in a state of change, too; new functions are being established, the organs performing them demand greatly increased nutrition, thus adding to the work of the heart.

Under perfectly normal conditions, however, the heart is able to perform its additional work adequately.

Perfectly healthy children are able to go through the pubertic period without any appreciable ill-effects. The physiological processes go on gradually and easily, the growing organism adapts itself to changing, and finally to changed, conditions without undue strain, and the youth enters on the post-pubertic period of development easily and naturally.

Unfortunately the conditions are often not normal. The bad effects of hereditary taints, of constitutional diatheses, the evil results of antecedent diseases of childhood, or of chronic disturbances of nutrition, unfit the child for what may truly be called the period of developmental stress.

An added factor of far-reaching import, mentally and physically, is that of school overwork, with all that this implies.

These are, however, merely the predisposing causes of the form of cardiac dilatation under consideration. Its exciting cause is usually to be found in direct muscular strain. For it is just about the time of puberty that children begin to indulge in the more severe forms of muscular exercise. Bicycling, baseball, tennis and golf, long-distance running and swimming begin to be attractive. The child enjoys them; they offer a welcome, often a needed, diversion after the close confinement of the school-room. But though such exercises in moderation may be highly beneficial (unless there be special contraindication), they are often,

if pushed to extremes, distinctly injurious. And the child is apt to push them to extremes. The warnings of fatigue are disregarded, frequently from a disinclination to "give in before the others do." A single overexertion need not be attended with lasting injurious effects. But such strain often repeated begins to show itself by unmistakable signs. The reason for this is to be found in the fact before alluded to, that the heart is at this time in a transition state. There is a lack of reserve energy to meet these conditions, for the heart is already taxed nearly to its limit by its necessarily increased functional activity.

Presently the boy (for obviously the condition obtains oftener in boys than in girls) notices that he gets out of breath and weak after even moderate exertion. He may complain of severe palpitation at such times. He is often pale, sometimes even slightly cyanotic. The appetite begins to be capricious, the sleep disturbed and restless. The symptoms become more and more manifest the longer they are allowed to go uncorrected, the longer the exciting cause is allowed to exist.

Physical examination of the heart in a moderately developed case, even, shows a rather diffuse apex beat displaced to the left of the mammary line. Percussion reveals an increased area of precordial dullness, transversely, varying, of course, with the degree of dilatation. On auscultation the first sound at the apex is prolonged, or there may be a distinct systolic bruit. This bruit need not be limited to the apex, it may in fact be heard over almost the entire precordia, but it is, as a rule, not transmitted to the angle of the scapula. The second sound over the pulmonary is often *not* accentuated, but the second aortic sound may be clear and sharp. The pulse is soft and compressible, its rate usually accelerated, and there may be slight irregularity.

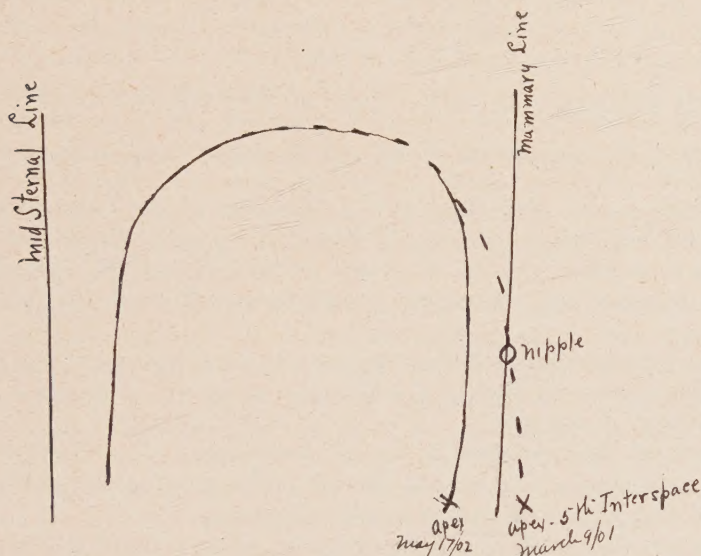
While under such circumstances the diagnosis of the cardiac dilatation itself is not difficult, it is not always easy to determine at once whether we are dealing with simple myocardial weakness or some graver form of heart lesion.

This is particularly true if there be a history of antecedent rheumatism or chorea, and if the signs and symptoms of valvular lesion be present. In such cases it may not be possible to make the definite diagnosis at once. Such cases are, however, the exception, and ordinarily the recognition of the condition after a careful inquiry into the history, and a thorough examination, offers no especial difficulties.

In uncomplicated cases, where we are dealing with pure muscular overstrain, the prognosis is generally good. The recuperative power of the heart muscle at this time is very great. Where the mechanical congestion has been of short duration, where the consequent fibroid change in the muscle wall has not taken place to any great extent, the muscle recovers its tone easily when the exciting cause of its weakness is removed. Then, too, in children the toxic causes of cardiac myopathy, alcohol, tobacco, gout and syphilis, do not play nearly so important a role as in adult life, and their injurious effects are proportionately diminished or absent.

The first requisite of treatment is, therefore, the removal of the exciting cause, muscular overwork, and this is to be accomplished by putting the child absolutely at rest. It is always hazardous to allow the child a "moderate amount" of exercise in these cases, for the reason that the child's idea of "moderate" is apt to be the simple limit of inclination. If the symptoms be at all urgent, and particularly if the dilatation be at all pronounced, it is best to insist

upon rest in bed, with the child flat on its back, for several weeks. In no other way can the work of the heart be so easily minimized, in no other way can the heart so quickly regain its tone. During this period the diet should be light and nutritious, but should contain the minimal quantity of fluid, so that the volume of blood to be pumped can be reduced as much as possible. In the search for easily assimilable food the mistake is often made of allowing the child as much milk as it will take. It is true that milk is an easily digested food for most children at twelve or thirteen. But the nutritious element here is, of course, very largely diluted, and the large volume of fluid taken throws additional work on the heart. The same thing is true of soups and broths. Liquid food should be given in as small quantity as possible, not exceeding one and one-half pints in the twenty-



four hours. This regimen is not always carried out easily, and often requires all the physician's tact, perseverance and firmness, but it is an important factor in the therapy.

In the beginning, especially if there be great irregularity of the heart's action, digitalis is often of value, and strychnia is frequently of service at all stages. But after all, it is more important to lessen the work of the heart than to stimulate the heart up to doing an increased amount of work. And this lessening of the heart's work is best accomplished by rest. The bowels should be regulated, and anemia combated by ferruginous tonics.

Even after the child is up and about again, all severer forms of exercise must be strictly interdicted. And this restriction of exercise should last for a very considerable time, a period measured by months rather than by weeks. The kind and amount of exercise to be allowed will be questions calling for the most conscientious judgment of the physician, and the decision will only be reached after careful study of the peculiarities of the individual child.

As an illustration of the type in question a few brief notes of a case recently under observation may be appended:

M. A., male, æt. thirteen and one-half years. Always well and strong. Recently has had a good deal of palpitation and dyspnea after exertion. Has been indulging in much violent exercise of late, especially "hare and hound" running. Examination March, 1901, shows distinctly increased area of transverse cardiac dullness, apex beat diffuse, systolic murmur at apex. Pulse, 110; slightly irregular; tension low.

Under rest in bed for three weeks, diet and a tonic, condition improved rapidly, and within four months there was no dilatation, and no bruit. In February, 1902, had a severe double broncho-pneumonia following an attack of measles. The heart remained in good condition throughout the attack and showed no dilatation afterwards.

The figure (p. 589) shows the area of precordial dullness traced after the method of Lees and Poynton. The dotted line shows the limits in March, 1901, the other on May 17, 1902.

SOME STUDIES OF THE PERIODICITY OF INEBRIETY.

By T. D. CROTHERS, M. D., of Hartford, Connecticut.

The alternation and periodicity of the functions of the brain and nervous system have not been fully studied. Periods of sleep and wakefulness, the rise and fall of temperature, rhythm of heart pulsations and changes in cardiac pressure, the nutrient and reproductive periods are all common physiological periodicities.

This same mysterious alternation appears in the diseases and degenerations of the brain and nervous system. The periodic neuralgia, migraines and epilepsies are familiar illustrations.

In insanity the *folie circulaire* is equally noticeable. This rise and fall of nerve functions, changes in habit and alternations and relapses in disease suggest a field of laws and forces that is largely unknown.

The inebriate who drinks to great excess at distinct intervals and abstains totally during the intervening time is a type of the periodic character of these strange cycle degenerations.

At one period the victim is a rigid moralist and strict abstainer, and often by word and example is a temperance teacher of an aggressive type, whose views are emphatic and earnest. Later he is secretly and openly an excessive drinker and a low intriguer, displaying the most opposite traits of character and conduct. Some general statistics indicate that over fifty per cent. of all inebriates are of this periodical class.

The length of the free interval varies widely, in some cases recurring at distinct intervals not varying more than a few hours; in others the free interval is very irregular, apparently depending on unknown conditions of environment, while in still others it follows certain functional derangements and disturbances of nerve and brain health. In certain cases the attack appears as suddenly and mysteriously as a flash of electricity in a cloudless sky.

The clinical history of these cases reveals several distinct classes with widely varying symptoms and conditions.

One of the most prominent groups I have ever met are the insane impulsive periodics. The drink craze comes on abruptly when least expected. Thus, at

some unexpected moment the patient relaxes, often when his presence and judgment are most essential to success. As an example, on the eve of marriage or some social, political or literary triumph or business success this delirium appears.

He will disappear and conceal his condition or may boldly display his drinking in opposition to all advice or entreaty. Then suddenly he will realize his condition and make a great effort to recover. Intense sorrow and grief, coupled with explanations, prevarications and earnest efforts to repair the losses will follow. Often he will ascribe his recovery to some means or remedy taken at the last moment and defend it with delirious faith and energy.

He is unable to give any rational idea for the motives or reasoning which preceded the drink craze.

The memory is always vague as to the nature of his acts. Although events may be clear, the higher consciousness is cloudy. The reason and judgment seem to be suddenly arrested by some morbid impulse which palsies every other consideration but its gratification.

Men of this class will display delirious zeal for the temperance cause and be very prominent in revival and other religious meetings during the free interval and continue it during the onset and decline of the paroxysm. The height of the attack is marked by coma or extreme delirium, with delusions, hallucinations and hyperesthesia running into intense egotism, ending in a period of bold hypocrisy and self-deception.

Another class of these periodics will display distinct premonitory symptoms of the drink craze and will be clearly unconscious of it. The more common of these symptoms are degrees of unusual excitement or depression, great business energy or apathy, or especially brilliant mentality or the opposite.

Often they exhibit alarm for their future state, fear of poverty or dread of sudden death. Then suddenly the drink delirium appears and an entire change follows. When this subsides the old delusions are not taken up. Deep depression generally follows, with a partial or total blank of memory or a delusion of some particular pleasing or unpleasing event in the paroxysms.

Not infrequently marked hallucinations and delusions continue for a long time. The drink insanity is sometimes filled with short periods of pretended effort to abstain, of intrigue and low cunning to defeat the efforts of others to help them.

Such men appear at the prayer and temperance meeting, appeal to the benevolent and pose as examples of cure by some strange mental or moral remedies. Egotism seems to be a dominant mental symptom, together with duplicity and prevarication.

A third class after a period of prolonged sobriety will have premonitory periods of delusive reasoning, such as ideas that they have some disease which requires spirits as a remedy. They appear in good health and seem oblivious to any past experience in which this same idea preceded former paroxysms. After a drink of spirits as a medicine the drink storm comes on. When this is over they do not stop spirits abruptly, but continue in decreasing doses until final subsidence. Then comes a period of food and health delusions, marked by unusual care of themselves, their surroundings and nutrition.

Such cases are not unfrequently checked in the midst of a drink paroxysm

by some powerful mental emotion, as an appeal to their fears, forced change in their surroundings or abrupt shocks to their ambitions or purposes in life.

Often the paroxysm is masked by some condition which breaks out again when these restraining states are removed.

This class is prominent for the mental symptoms of paranoia and defects, and are rarely seen occupying positions of trust and responsibility long. They develop general paralysis and melancholy and often die of suicide.

A fourth class are noted by the exact recurrence of the drink cycles irrespective of all conditions and surroundings of life. The paroxysm is sudden and impetuous, and the mind is filled with delirious conceptions of pleasure from the taste and effects of alcohol. This state may be concealed for a time, but grows steadily until full gratification follows. Such cases suddenly assume some burden of reform, with a secret hope to break up their imperative conceptions.

The most careful plans for the concealment of the drink storm are often made, which end abruptly with no especial depression or moral regret.

The memory of acts committed during the storm is cloudy, and the free interval never varies in time, and hence a certain expectation is created in the mind which prepares for it. Many of these cases are engaged in the work of helping others, and exhibit strange acts which are only explained by the presence of this fated periodicity. These cases never give any rational reason or explanation of their conduct, and as a rule always try to conceal it.

The heredity of these cases is prominent. So far, over ninety per cent. of all cases of periodicity have a neurotic heredity. Insanity, epilepsy, inebriety, hysteria, idiocy, dementia, paranoia, also phthisis, rheumatism and the various organic heart diseases are present in the parents and grandparents, indicating an irresistible neurotic degeneration coming from the ancestors. All these neuroses are interchangeable, and may break out in periodic inebriety from special and unknown exciting causes. The recurrence of the drink paroxysm is in itself evidence of a neurotic origin involving the higher controlling centers.

The drink craze, as at present understood, is a symptom of central nerve and cell debility demanding relief from the narcotic action of alcohol. Why these states of brain anemia and cell irritation should gather and explode at periodic intervals is not clear. The same states of degeneration, both acquired and inherited, appear in epilepsy and other neuroses, showing that they are clearly allied family diseases, only varying in symptoms.

As in epilepsy, the periodic inebriate suffers from disturbance of the co-ordinating and inhibitory apparatus of the higher brain center.

Nerve energy is not liberated along motor tracts, but through mental areas in the impulse for relief from the paralysis of alcohol. The discharging energy is neutralized by chemical restraint.

The physical and psychical irritation of the brain centers is overcome by continuous narcotism (for the time). Then a period of normal activity follows, in which this explosive impulse is dormant. These paroxysms resemble epilepsy in origin, onset, duration and termination. They differ in being confined to consciousness and mentality, with a central impulse for relief. After the explosion the mental operations seem normal and along the levels of comparative health. Opium and other narcotics will bring the same relief as alcohol at these times, but probably they are followed by more organic disturbance which demands their continuous use.

In all probability periodic inebriety is largely a masked form of epilepsy, and is the result of special unknown exciting causes and conditions. The steady drinker will, after a time, have alcoholic epilepsy or epilepsy from continuous irritations of the cortex.

The epileptic will often become a periodic inebriate, manifesting at times a delirious craze for alcohol and then having a free interval of sobriety. The same causation seems to be present in both. The same profound cerebral anemia or irritation that breaks up co-ordination and perverts nerve energy, may develop into a convulsive discharge through the motor tract, or a convulsive impulse for spirits and relief.

These periodicities are more common after twenty years of age, when the organic activities of the brain have become matured, and often subside or merge into some serious nerve or brain degeneration before fifty. In many cases they appear to follow a natural cycle, beginning in a short period of continuous drinking, then a drink paroxysm with long, free intervals. The length of this paroxysm increases up to a certain point, then grows shorter. Commencing in a single day or night's indulgence, it grows until it covers two or three weeks of time, then becomes less and less until finally a day or a few hours is the utmost limit of toleration. The system then refuses to retain any more spirits and an intense loathing and repugnance follows. The free intervals likewise change, at first extending over months and often one or two years, then grow gradually shorter until they reach a minimum of a day, then increase until the drink craze finally dies out or death follows.

This rise and decline in the length of the drink period and free interval, point to some unknown law of accumulating nerve force and degeneration.

The force generated in the nerve centers concentrates and reaches a degree of tension that is only discharged in the acute delirium and coma of alcoholism. The narcotism of opium, chloral and other drugs is rarely followed by repugnance or a free interval of relief and rest. Hence, the treatment of these drink paroxysms by the substitute of other drugs is always dangerous.

Is it possible for any one to be narcotized for a week or more at different intervals and retain normal reason? Does the brain fully recover from these explosions and the chemical and physiological action of alcohol, when used to excess, even though followed by a free interval?

The popular opinion, even among physicians, is that such symptoms are often signs of genius and capacity, and are rarely to be considered as evidence of disease.

Clinical study brings no support to such views, but, on the contrary, points out grave changes of the higher brain centers, seen in failure to reason and to control the functional brain activities.

While the higher and psychic brain steadily degenerates, the lower motor and automatic brain goes on masking and concealing the evidence of disease.

Along the normal lines of every day's thought and work the apparent health of the victim is unquestioned; but vary this, and his real condition is apparent.

Let the periodic inebriate change his occupation and surroundings, and this incapacity and unsoundness will be prominent. Practically the periodicity of the drink craze, together with its intense, unreasoning demand for narcotism, is an unmistakable sign of disease.

Literally both the morbid impulse and the effects of its gratification break up the co-ordination and the inhibition of the higher brain centers, impairing the capacity for healthy reasoning and leaving states of debility and unsoundness.

The failure to realize this fact is followed by very serious losses, accidents and tragedies every day.

The periodical inebriate should, of all others, receive immediate medical care. There is impending peril and danger in his case, far more than in the regular drinker. His case should be studied, and the various predisposing and exciting causes removed, and the real disease discovered of which the drink craze is only a symptom.

While the periodical inebriate may live many years and attract no attention, medically he is always the center of possible grave irregularities, epilepsies and paralyzes. His conduct is a succession of disappointments, of failure and losses, as viewed from the moral side. Overweening confidence and boasts of strength, and abject failures, are constantly repeated. Many of these cases become paranoias and dangerous to society.

The very complexity of the causes and symptoms make them fit subjects for delusions and epidemic credulities and enthusiastic supporters of all the changes and events involved in mystery. The mystery of these drink cycles in themselves prepare the mind for credulous, unreasoning superstition and conduct.

The number of periodic inebriates in all conditions of life is very large, and while they do not attract much attention, are unquestionably the most dangerous brain and nerve defectives in the community. They are amenable to treatment and are both curable and preventable.

The periodical inebriate, like the epileptic, has been mustered into an organized cycle of degeneration and death, and there is no escape except by applied rational science.

This is the new psychological territory opened for exploration, with its boundless wealth of facts and laws pointing to causes and conditions that are preventable, awaiting discovery and application and promising a new era in medical science.

As a summary of this brief study :

1. The periodicity of the drink paroxysm is unquestioned evidence pointing to central brain disease.
2. Heredity, nutrition, mental exhaustion and environment are all very common causes or predisposing factors of this condition.
3. Allied diseases, of which epilepsy is very common, are associated with this, and similar affections are interchangeable.
4. The drink periodicity follows a uniform line of events, ending about the same way in nearly all cases. Its varieties and symptomatology are practically the same in the regularity of origin, development and termination.
5. These cases are the most uncertain and dangerous of all drink neurotics and are the least understood. The prognosis is uncertain and full of dangerous possibilities.
6. These cases are very susceptible to treatment when the measures are applied scientifically and with full knowledge of the causes. Their inebriety is more positive than that of other inebriates. The drink impulse is often con-

trollable and frequently disappears with treatment. This class requires the most careful medication and study.

7. Medico-legally, the most important problems are associated with these drink paroxysms. Each case requires special study and is to be judged from general principles of physiology and psychology.

8. Such cases of necessity have impaired brain and nerve control and cannot be measured by the rule or standards of mental health.

9. These cases should receive careful study and examination. Tabulated facts of sufficient number and accuracy are needed from which to draw accurate conclusions, covering the laws which govern this class of neurotics.

CLIMATOLOGICAL FEATURES OF PLAGUE IN MANILA.

BY W. J. CALVERT, M. D., of St. Louis.

PATHOLOGICAL LABORATORY OF MEDICAL DEPARTMENT, WASHINGTON UNIVERSITY.*

From the second century B. C. to the present time history records numerous epidemics of plague on the shores of the Mediterranean, in the northern portions of Europe, Russia, England, and in some districts of Asia. The location of these countries in subtropical, temperate and colder climates, and the absence of records of epidemics of plague in tropical countries, gave rise to the general opinion that plague could not thrive in a tropical climate. For years, the strongest argument in favor of this opinion was the absence of plague in the upper tropical portions of Africa during the numerous severe epidemics of the disease in the lower districts of Egypt. Usually a diminution in the severity of an epidemic precedes or accompanies the advent of the hottest season. On this fact is based the saying that plague will not thrive in hot, dry weather.

Recent epidemics have disproved the old idea that plague could not thrive in the tropics and during the hot season of the year. As proof of the former, may be cited Koch's discovery of plague in tropical Africa, and the recent outbreaks of the disease within the tropical zone; of the latter, the severe outbreaks of plague in Constantinople during the hot season of 588, in Malta in 1812, and in Algiers in 1813. Numerous epidemics of plague have occurred in severe winter time. While plague has and may occur in extreme hot and cold weather, a moderately high temperature and humid atmosphere are most favorable to the development of severe epidemics.

Manila is 14° north, surrounded by moderately high mountains, and located a few feet above mean high tide. During extreme high tides a large portion of the city is inundated.

According to Fig. No. 1, the year may be divided into three seasons: First, hot, dry; second, rainy; and third, winter season.

The hot, dry season begins about the middle of February and continues to the latter part of May or middle of June. During these months the temperature is high for weeks without a single intermission. In 1900, a maximum temperature of 98.8° F. was recorded on April 6th. The nights may be somewhat cooler. On March 1st a minimum temperature of 67.1° F. was observed. Dur-

* Observations made in Pathological Laboratory of Board of Health, Manila, P. I.

ing May, 1900, the mean temperature was 85.7° F. In this season the humidity is relatively low, showing in April only 67.2°; and the rainfall is greatly diminished. In 1900, from January to May, there were only three and four-tenths inches of rainfall. This is by far the most trying season of the year. Enervated by the continuous heat, one is little disposed to battle with the air laden with dust by the often burning monsoons.

The rainy season continues from the end of the hot, dry season to the middle

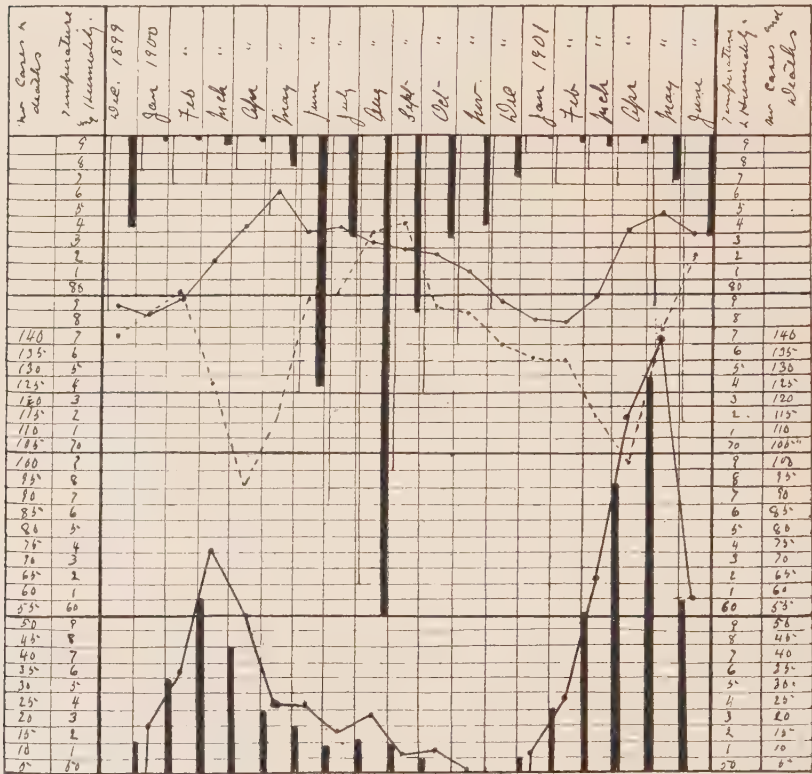


FIG. 1.

Each horizontal line represents one degree of temperature and humidity, and five cases of and deaths from plague. Each perpendicular line represents one month. Outside figures denote the number of cases of and deaths from plague; inner figures, degrees of temperature and humidity, rainy days and inches of rainfall.

In upper portion of chart light lines to left represent number of rainy days and heavy lines to right, number of inches rainfall per month (each line one day and one inch rainfall). Heavy, continuous line shows monthly mean temperature; dotted line, humidity.

In lower portion of chart the heavy, continuous line represents number of cases of plague, and the heavy lines to the left, deaths.

or latter part of November. During these months the temperature is from two to three degrees lower, more changeable, and often cooler at night (62° F. to 64° F.) than that of the hot season. Typhoons are frequent, during which extraordinary rain-storms occur. In August, 1900, thirty inches of rainfall were recorded, while in July, 1899, about forty-six inches of rain fell. Naturally, during this period the humidity is high, often reaching 100°. For September, 1900, the mean humidity was 83.5°. Often during a typhoon the sun is obscured

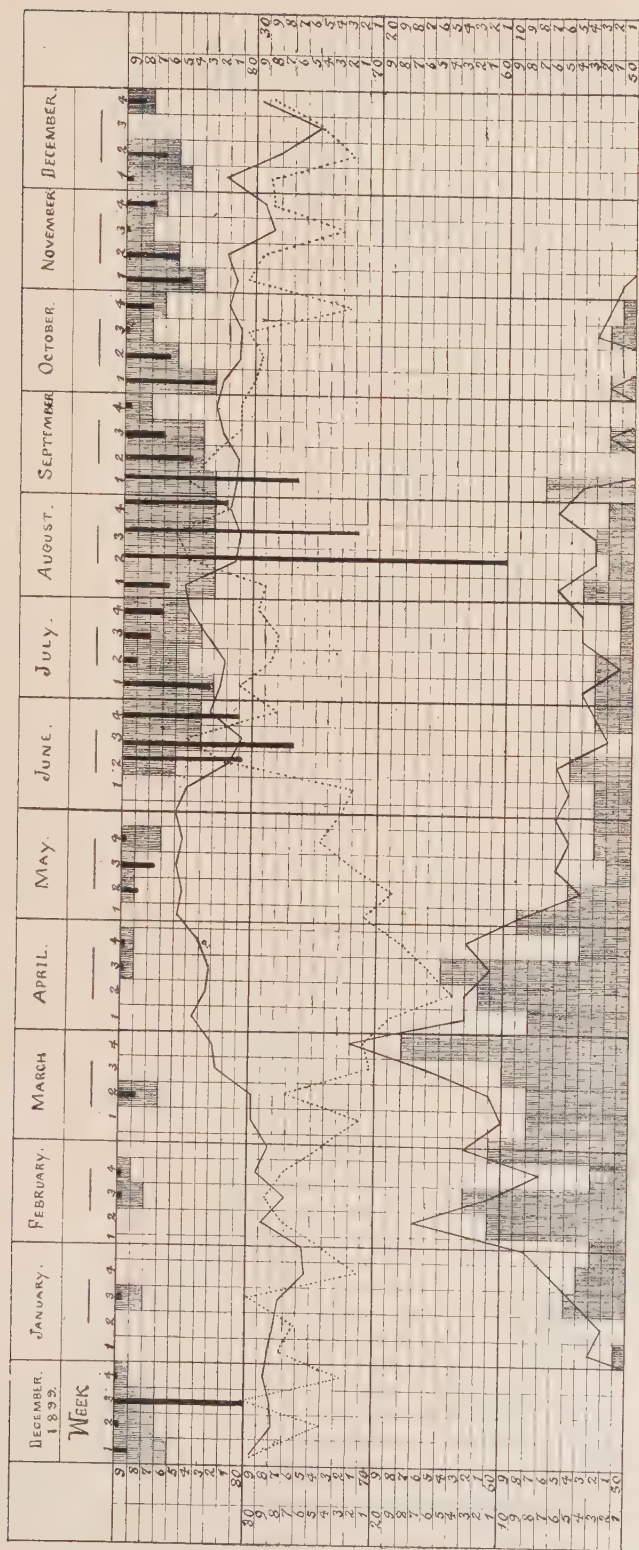


FIG. 2.

Same as Fig. 1, except each horizontal line represents one case of and one death from plague; each perpendicular line, one week; shaded columns at top of chart represent rainy days. black columns, inches rainfall; each horizontal line represents one rainy day and one-half inch rainfall; shaded columns at bottom of chart represent deaths from plague.

for from seven to fourteen days, during which time everything is saturated with water; indoors is almost as wet as outside. During October and November the rainfall gradually diminishes from week to week.

Winter extends from the end of the rainy to the beginning of the dry season. During the early portion of this season light showers occur, while the remaining portion is almost free from rain. Low temperature continues for weeks; mean temperature for January, 1900, was 77.6° F. Winter in Manila is very pleasant; the days are not too hot, and the nights are cool, resembling our early fall.

Throughout the year the monsoons materially diminish discomforts due to the climate. Excepting a few days in the hot, dry season and during typhoons, land breezes occur in the forenoon, and sea breezes in the afternoon and evening.

Early in January, 1900, plague was discovered in Manila. The number of cases increased from fifteen in January to seventy-two in March. This was the largest number for any single month. From March the number of cases of plague gradually decreased each month until November. In this month one case was found during the first week. From the second week in November to the last week in December no plague was found.

The second epidemic was in progress from the third week of December, 1900, to the last of June, when my records end. During the second epidemic the number of cases of plague increased from five in January, 1901, to one hundred and thirty-seven in May; after this time the number of cases rapidly diminished.

In 1900 the height of the epidemic was in March, or one month before the lowest mean humidity, and two months before the highest mean temperature. In 1901 the height of the epidemic occurred in May, one month after the lowest mean humidity, and during the month in which the highest mean temperature was noted. In other words, the second epidemic, while severer than the first, was slower in its development. The first epidemic passed its acme two months previous to the severe heat, while the second reached its acme during the hottest month. The first epidemic decreased gradually during the latter part of hot and beginning of wet season, while the second epidemic decreased rapidly, from one hundred and thirty-seven in May to fifty-five in June. The second epidemic was increasing during the driest portion of the year.

Each epidemic began during the second third of winter, continued through the hot, dry season, to disappear during the wet season.

An additional instance of plague appearing in the hot, dry portion of the year is afforded by the second epidemic.

On reviewing a number of epidemics of plague, it is found that plague may occur in any climate; but that for any given climate, plague reappears in certain season of the year. In Manila the plague season begins in the moderately dry winter time, continues through the hot, dry season, to end toward the latter portion of the rainy season. The remaining portion of the year is free from plague.

CLINICAL REPORT.

PENETRATING WOUNDS OF THE ABDOMEN.

BY H. L. NIETERT, M. D., of St. Louis.

SUPERINTENDENT AND SURGEON IN CHARGE OF CITY HOSPITAL, ST. LOUIS, MISSOURI.

During the past year twenty-eight wounds of the peritoneal cavity were treated at the City Hospital of St. Louis. Of this number nineteen were bullet and nine stab wounds. The nineteen bullet wounds resulted in thirteen deaths and six recoveries. The nine stab wounds resulted favorably, all having recovered. Laparotomy was made in twenty-three of the twenty-eight cases, with thirteen recoveries and ten deaths. The remaining five cases that were not operated upon consisted of three gunshot wounds and two stab wounds. The three bullet wound cases died. The two cases of stab wound recovered.

The sixteen cases of bullet wounds that were operated upon resulted in ten deaths and six recoveries. Of the sixteen cases, seven died of hemorrhage and shock, either during or immediately after the operation. The mortality of those cases surviving twenty-four hours was three deaths of those cases which were operated upon.

The seven cases of stab wounds that were operated upon, as well as the two cases not operated upon, recovered.

Our treatment of penetrating wounds of the peritoneal cavity, given in a general way, is as follows:

Firstly, a thorough and immediate preparation of case for examination and operation.

Secondly, an exploratory laparotomy.

Thirdly, repair of the injury and stopping of hemorrhage. In our resections the Murphy button has been exclusively employed.

Fourthly, in all bullet wounds perforating any portion of the gastro-intestinal tract the peritoneal cavity has been flushed with physiologic saline solution and drainage employed.

Fifthly, hot, moist, saline packs were applied twice daily and head end of bed elevated six to nine inches.

Sixthly, stimulants of physiologic saline solution were employed, both in enemata and hypodermoclysis, as indicated.

Seventhly, in wounds of the stomach and small intestines, feeding was restricted to the rectum for the first week and everything was forbidden by the mouth.

A few histories of the important cases are given below:

Case 1.—History No. 7801, patient was brought to the hospital February 19, 1902, at 4:00 P. M., with a bullet wound located in the epigastric region, one inch to the left of the median line and two inches below the xiphoid cartilage. Patient was immediately prepared for operation, which was begun three-quarters of an hour after arrival. On arrival the vomitus contained blood. The urine, obtained on catheterization, contained no blood.

Operation.—An incision four inches long was made in median line in the epigastric region. On drawing for the stomach a perforating wound was found in the anterior wall of the fundus. The wound was sutured by a double row of

sutures. The lesser cavity was entered through an opening made in the gastro-colic fold of the peritoneum and the posterior wall of the stomach examined. A large perforation was found in the posterior wall and was closed by Czerny-Lembert sutures. A large amount of blood and stomach contents was found in lesser peritoneal cavity, which was carefully mopped away by gauze sponges. From the position of the wound the direction of the bullet could easily be determined and it was evidently in the large muscles of the back. A large gauze drain was placed in the lesser peritoneal cavity and left protruding from the surgical incision. A large, hot, moist saline pack was applied to the abdomen. Patient was placed in a warm bed and stimulants administered. The stimulants resorted to were saline enemata and saline hypodermoclysis. Everything was prohibited by the mouth. The hot packs were repeated twice a day for five days. The drains were gradually removed; convalescence was uneventful.

The interesting feature of this case is that no signs of general peritonitis followed, though the lesser peritoneal cavity contained a large amount of escaped stomach contents. and irrigation was not resorted to, but merely mopping with gauze sponges.

Case 2.—History No. 7850, had a bullet wound located in left linea semilunaris, on a level with the umbilicus and penetrated into peritoneal cavity. Laparotomy was made half hour after arrival. A four-inch incision was made in the left semilunaris. The bullet perforated the mesentery and descending colon. Considerable hemorrhage had taken place from the severed mesenteric vessels. No intestinal contents could be seen. The vessels were ligated and perforations sutured. Peritoneal cavity was flushed with a physiologic saline solution and the abdomen closed, layer by layer. No drainage was employed. Dry dressing was applied to the wound. Patient was put to bed with the head elevated six inches. A hypodermoclysis was administered. Patient recovered.

Case 3.—History No. 4273, had a bullet wound in anterior axillary line on left side on a level with seventh interspace. Examination showed the seventh rib shattered, dullness on percussion over left pleural cavity. Patient was exsanguinated. Thoracotomy was done at once and the severed vessel ligated. Pleural cavity was emptied of its bloody contents with physiologic saline solution. Further examination showed that there was a hernia of the omentum through the opening in the diaphragm, made by the bullet. The hernia was reduced and diaphragm sutured. Now a laparotomy was made in the median line and the abdominal viscera carefully examined. The only perforation found was in the left lobe of the liver, from which considerable bleeding had taken place. The liver perforation was packed with gauze from the under and upper surface. Peritoneal cavity was flushed until the washings came away clear. Abdominal wound was partly closed and hot packs applied. Patient recovered.

Case 4.—History No. 7126, was brought to the hospital with a stab wound in left anterior abdominal wall, midway between the umbilicus and the anterior superior spinous process of the ilium. The wound penetrated the peritoneal cavity and a large portion of the omentum was protruding from the wound. Patient was immediately prepared for operation. A portion of the omentum, which was protruding, was carefully ligated and removed. The abdominal wound was enlarged sufficiently to permit of a careful examination of the viscera in that region. No perforation being found, the abdominal wall was closed. Patient recovered.

Case 5.—History No. 7815, was brought to the hospital with a bullet wound in the abdominal wall, two inches to the right of the left anterior superior spinous process of the ilium. Preparations were immediately made for laparotomy. A thorough examination of the bullet wound was made to determine

whether or not it had penetrated. The wound could be followed up to the transversalis muscle, where its course apparently ended. It was then thought that the bullet had not entered the peritoneal cavity, but had fallen out of the wound. The operation was discontinued and the wound closed. Two days later patient developed a frequent and thready pulse, abdomen became distended and tympanitic. Patient vomited frequently and it was evident that he was suffering from a general peritonitis. All feeding per os was abandoned. Stomach was siphoned. Patient was fed per rectum. This treatment was continued until the patient's death. Post-mortem examination showed that the bullet had penetrated and injured the small intestine and that the patient died of general peritonitis.

Case 6.—History No. 6127, had a bullet wound in the anterior axillary line, which shattered the sixth rib. Bullet passed downward, backward and to the left and was lodged under the skin in the mid axillary line of the left side on a level with the eighth rib. After immediate preparation of the patient for operation the bullet wound was thoroughly examined. It was found that there was blood in both chest cavities, indicating that the bullet had passed through both cavities. It was also found that the bullet had perforated the diaphragm. Patient's vomitus contained blood. The shattered portion of the sixth rib was resected on the right side, as was also the eighth rib on the left side. Intercostal vessels were ligated and bullet removed. A portion of the omentum presented from the perforation of the diaphragm on the left side. This was pushed back into the peritoneal cavity and the opening was closed by silk sutures.

A median incision, four inches in length, extending downward from xyphoid cartilage was made and the stomach examined. Two perforations were found in the posterior wall of the stomach, which were carefully sutured. The upper surface of the liver was furrowed by the bullet, wherefrom considerable hemorrhage was taking place. Hemorrhage was controlled by packing. Drains were placed in the lesser peritoneal cavity and external wound partly closed. The usual post-operative treatment was employed.

On the seventh day all the drains from the peritoneal cavity were removed. Abdominal wound contained pus. This continued to discharge for four weeks. At the expiration of this time the discharge was very profuse and temperature became irregular. Blood analysis revealed a negative Widal reaction, no plasmodium, but an increase in the leucocytes. A thorough examination was made at this time, under a general anesthetic, and a pocket of pus found deep in the peritoneal cavity. This was thoroughly cleansed and a drainage tube introduced.

Two months after the arrival patient developed lobar pneumonia of the right lung, which was evidently due to infection. The pneumonia terminated by abscess formation. Two inches of the seventh rib on the right side of the anterior axillary line were resected and an abscess opened, wherefrom a large amount of pus was drained. The pus contained staphylococci. Patient's temperature chart continued irregular and general condition became worse. He died one hundred and seventeen days after arrival, from a general sepsis. Post-mortem was not made, as the case was investigated by the coroner.

INTERSTATE MEDICAL JOURNAL.

EDITED BY

WILLARD BARTLETT, M. D.
MALVERN B. CLOPTON, M. D.
HUGO EHRENFEST, M. D.
MARTIN F. ENGMAN, M. D.
ALFRED FRIEDLANDER, M. D.
R. B. H. GRADWOHL, M. D.
JOHN GREEN, JR., M. D.

H. McC. JOHNSON, M. D.
JESSE S. MYER, M. D.
WARREN B. OUTTEN, M. D.
WILLIAM PORTER, M. D.
WILLIAM E. SAUER, M. D.
SIDNEY I. SCHWAB, M. D.
ALBERT E. TAUSSIG, M. D.

OTHO F. BALZ, M. D. Managing Editor.

COLLABORATORS:

MAX MICHAELIS, M. D.,
Docent of Internal Medicine, University of Berlin, Germany.

FRANZ NEUGEBAUER, M. D.,
Professor; Director of the Evangelical Hospital, Warsaw, Russia.

JULIUS NEUMANN, M. D.,
Docent of Obstetrics and Gynecology, University of Vienna, Austria

JULIUS SCHNITZLER, M. D.,
Docent of Surgery, University of Vienna, Austria; Surgeon-in-Chief, Franz Joseph Hospital, Vienna.

HEINZ WOHLGEMUTH, M. D.,
Berlin, Germany.

Address all communications to the INTERSTATE MEDICAL JOURNAL, LINMAR BLDG., ST. LOUIS, MO.

EDITORIAL COMMENT.

DR. LORENZ AND THE STATE OF ILLINOIS.

While the attitude of the State of Illinois in requiring Dr. Lorenz to take out a license may be susceptible of correct legal interpretation, we do not agree with some of our contemporaries that the action was the right one at the right time and at the right place. In spite of the fact that Dr. Lorenz remained longer in Chicago than would be necessary for a consultation, the rights accorded a consultant, and especially a foreign one, are applicable in a reasonable number of successive consultations. No one will contend that the eminent Austrian surgeon left his country and came to this country for the purpose of "practicing medicine" among its inhabitants. He came here to consult with Mr. Armour's physician, and while here has been repeatedly called in consultation in similar cases. At no time has he signified his intention to practice medicine in the United States as interpreted by our own courts or to perform operations until the number of consultations were exhausted. The legislative and executive aspects of the law frequently need to be tempered by a fair and just interpretation. Eminent physicians and surgeons of the United States have frequently visited foreign countries, and officiated both in clinics and in private cases, without having been subjected to uncalled-for legal hardships, almost amounting to breach of hospitality. By confronting Dr. Lorenz with this statute of the State of Illinois, it has kindled the flames of the ever-voracious lay press, and oiled the tongues of the ever-ubiquitous newspaper reporters. A surgeon with the international reputation and local respect that Dr. Lorenz commands did not

deserve to be placed on the defense, or subjected to what probably has been correctly termed notoriety. The fact that it would be difficult for even educated physicians to obtain licenses either in Germany or Austria, as claimed by some, should not be alone considered in the sense of foreign exclusion, but rather to the extreme difficulties encountered in meeting the requisites of German educational standards. We ought to look into the preliminary and medical education of our own graduates, to the question of reciprocity in our own states, before we glaringly confront a venerable visitor to our shores with the intricacies of our legislation. It does not require a Cicero's oration on the citizenship of Archias to elucidate the subject.

HYGIENE OF WOMAN.

There is no nobler task set before the physician than to teach mankind how to prevent disease. All the grand achievements of modern medicine culminate in prophylaxis. To utilize what we physicians have learned so far in regard to diseases and their causes, to protect the coming generations from untoward influences incidental to life, to liberate them from the clutches of degeneration and to improve the race—this it is that will make the physician, in all truth, the benefactor of mankind. The female sex, in particular, needs the greatest protection. A nation without strong women and healthy mothers cannot ascend—nay, is bound to deteriorate. The comprehension for the urgent necessity of female hygiene ought to become universal among our profession. We find pleas for protection of women and children dispersed in our medical journals and textbooks, and even the *belle literature* and the stage have taken hold of the subject. It is with the greatest appreciation that we have perused a work recently published by two French physicians, Platon and Sepet, entitled "*Hygiene de la Femme*," which treats the four phases of womankind—childhood, girlhood, motherhood, and old age.

The hygiene of the child begins with her birth. The determination of the sex, in hermaphrodites, is sometimes extremely difficult, and both physician and midwife must bear in mind how momentous the correctness of their judgment is in this matter. The mastitis of the infant, though of common occurrence, demands earnest attention, since the sequela of suppuration, viz., atrophy of the breast, disfiguring scars and retracted nipples, are, in years to come, not only repugnant from an esthetic standpoint, but render the future mother unable to nurse her children. In the advice given on the subject of proper feeding, clothing, cleanliness, vaccination, etc., we constantly find as the dominating idea of the authors the truism that the child is mother to the woman, just as "the child is father to the man."

The child grows older and enters the period of puberty. This wonderful revolution in the girl's body and mind must needs call forth the combined attention of mother, teacher and physician. This is the time of woman's life when so many physical ailments and moral deficiencies originate. In a splendidly written chapter the authors discuss all means that can make the bodies of our daughters strong and their minds healthy—from the choice of appropriate clothing to reading good books; from physical exercises, riding on horseback, swimming and automobilism to attendance at theaters, concerts and balls.

The chapter on indications and contra-indications of marriage is more than

a medical essay. It offers the widest social perspective, and the public at large will be greatly benefited by its perusal.

Woman is destined for motherhood—for motherhood by marriage. What hygienic measures does the married woman require? What are the causes of, and how to overcome, sexual frigidity? Why and how must sterility be avoided? All these and numerous other questions are treated with equal detail. The hygiene of pregnancy, parturition and the puerperium are interestingly brought before us. The section on the hygiene of the young mother is instinct with the one sentence: every woman should nurse her child. Lactation renders the woman healthier and stronger. She thus accomplishes her true duties in a strictly physiologic sense. She has borne a child, a part of her own flesh and blood; she must continue to foster it with all her thoughts and all her affection, for “the child needs its mother’s love as much as her milk.”

And now the third radical change in a woman’s life—the menopause. The suggestions of the authors as to the hygiene of this period stand on a par with those in the foregoing chapters, and though they are but a repetition of what we have so often heard and read, they should be attentively considered by the family physicians.

Old age, at last, arrives. After the cares and trials of motherhood, after the recent and frequently severe crisis of the menopause, the hour of rest seems finally to have come. But the *role* of woman is, as yet, by no means finished. Replete with experience, her advice will be of benefit to the growing families founded by her children. Let us devote all possible care to the hygiene of the grandmother. By doing this we shall render her cheerful, shall lengthen the last days of her life, and the unavoidable end will be but the rounding out of a complete and useful life.

DEPORTATION OF CHORIONIC VILLI INTO THE MATERNAL SYSTEM.

Notable progress has been made of late in our knowledge of the histology and development of the placenta. We may assume that the presence of blood in the intervillous spaces is at present almost generally acknowledged. We can observe how, since Peters’ painstaking observations have been published, the old conception of nidation of the ovum is steadily losing ground, and at present the majority of scientists are inclined to believe that the impregnated ovum attaches itself to and buries itself in the deeper layers of the decidua vera. The number of the adversaries of the theory that syncytium is a fetal and not a maternal structure is fast diminishing.

Yet our knowledge of the physiology and pathology of the placenta is by no means complete. One of the latest problems facing investigators is the fact that complete chorionic villi have been found in various parts of the body, far from the uterus.

Many observations are recorded of the presence of chorionic villi in metastatic nodules, found in vagina or lungs subsequent to hydatiform mole or to chorio-epithelioma—better known as deciduoma malignum. Especially in cases of hydatid mole a remarkable vitality of these deported villi was observed. They did not show any tendency to atrophy, but on the contrary to multiply. They developed in some instances a destructive tendency, and led to the formation of tumors of the most intense malignancy.

The separation and deportation of chorionic villi in ectopic pregnancy has been observed and described by Veit (*Zeitschrift fuer Geb. und Gyn.*, vol. xlv,

1901). Especially this latter article suggested the question whether such a deportation is not also possible in normal pregnancy. We owe to Poten the reply; it is in the affirmative.

In an elaborate paper, published in the *Archiv fuer Geb. und Gyn.*, vol. lxxvi, 1902, Poten records the results of an examination of seven pregnant uteri and concludes: Separation of complete chorionic villi or of parts of the syncytial cover of the villi and their deportation into the maternal system is possible in every stage of pregnancy; most probably it is a typical occurrence taking place in every pregnancy.

This observation at once shatters our old belief in the existence of a secure barrier between fetal and maternal blood in the normal placenta. If chorionic villi are torn off and carried away, lesions in the placental structure and free communication between the blood of the fetus and the mother are the self-evident sequelæ. Two problems prominently present themselves: What becomes of these villi, carried off into other parts of the body? What effect has this vulneration of the placenta, viz., this disturbance of its integrity?

It has been said above that in cases of chorio-epithelioma the deported villi form the nucleus of a metastasis, and that in cases of hydatid mole they may continue development and become malignant in character. As regards the deported villi in normal pregnancy, Poten is inclined to think that they disintegrate, atrophy and disappear. They have been found as emboli in the blood vessels of the lung, and Veit suggests they may in some instances be the cause of the formation of thrombosis in the pelvic veins subsequent to confinement. Poten concludes that, since this tearing off of villi is a typical occurrence in pregnancy, it has, as a rule, no pathologic effect. He believes, however, that a certain influence upon the organism may be exerted under certain conditions. He finds in this new observation a plausible explanation for some of the rather more intangible manifestations in the syphilitic state. Hitherto various unsatisfactory theories have been advanced to explain conditions such as the following: A healthy woman is impregnated by a syphilitic man; she develops no symptoms of syphilis, gives birth to a syphilitic child, but proves afterwards to be immunized against syphilis; or such a woman is afterwards impregnated by a healthy man, but gives again birth to a syphilitic child without ever having herself exhibited symptoms of syphilis. Poten offers a new explanation for these facts which is based upon the now proved existence of the deportation of chorionic villi into the maternal system in every pregnancy. His interpretation is satisfactory, and is devoid of the instability which is, as a rule, incident to theories in general.

BUFOTALINE—AN ANIMAL DIGITALINE.

In a recent communication to the *Academie des sciences* of Paris, MM. Phisalix and Bertrand described two interesting substances which they isolated from the venom of toads. The first, which they term *bufotaline*, might be called animal digitaline. It is a powerful cardiac stimulant, slows the cardiac action, and in large doses arrests the heart in systole. It is easily soluble in alcohol or chloroform, and but slightly soluble in water. The other substance, occurring with *bufotaline* in toad's venom, differs from it in affecting the nervous system rather than the heart. Its action is similar to that of curare. Injected into a cricket it produces, first, a progressive enfeeblement of the muscular apparatus, and finally complete paralysis. The heart of the paralyzed insect continues to beat actively. This substance is soluble in alcohol, not at all in chloroform, and dissolves in all proportions in water. It is not beyond the bounds of possibility that these substances may find a use in human therapeutics.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

A Study of Stagnation Icterus Consequent upon the Inflammation Accompanying Cholelithiasis.—EHRET and STOLZ (*Mittheilungen aus den Grenzgebieten der Medizin und Chirurgie*, vol. 10, part 1 and 2, 1902).—The first case proves that chronic icterus may result from the lodgment of a stone in the cystic duct, even though there is no compression of the common duct. The operation revealed a free passage through the ductus choledochus, yet the stools were free from bile pigments before the operation and remained so for several days thereafter. The absence of bile pigments from the stool can only be explained by the fact that the large bile ducts are transmitting no bile. The bile, in this case, appeared through the fistula ten days after the operation, and eleven days afterwards in the stool.

In a second case, on the other hand, three stones from eighteen to twenty cm. in diameter, and together five and one-half cm. in length, had lodged in the ductus choledochus without producing icterus. If the obstruction alone could result in jaundice, it would certainly have occurred in this case. After removal of the stones, there occurred a marked jaundice. Both of these cases show that removal of the obstruction does not necessarily relieve the biliary retention.

The cause of the icterus lies, not in the direct obstruction by the stones, but in the obliterating cholangitis in the small ducts, which prevents the flow of the bile into the large ducts. The cholangitis is usually of microbic origin.

A Case of Perityphlitis Resembling Tubercular Peritonitis.—RUBRITUS (*Mittheilungen aus den Grenzgebieten der Medizin und Chirurgie*, vol. 10, part 1 and 2), reports a case in which the symptoms pointed to the existence of tubercular peritonitis, while the autopsy revealed perityphlitis. There was gradual development of free fluid in the abdominal cavity for a period of six weeks, marked diarrhea, frequent vomiting, etc. After a puncture there followed an elevation of the temperature, multiple tumors developed in different parts of the abdomen, and in the epigastrium there appeared a band which was taken for the contracted omentum. Two symptoms were noted that are usually considered characteristic of tubercular peritonitis, viz.: a circumscribed tympanitic area to the right of the umbilicus and an inflammatory infiltration about the navel. The autopsy revealed a sero-purulent peritonitis and an appendix ulcerated and perforated in two places.

Alimentary Glycosuria and Laevulosuria in Diseases of the Liver.—FERRANNINI (*Centralblatt fuer Innere Medizin*, September 13, 1902).—It is well known that many diabetics can assimilate laevulose, but not grape sugar. Upon the removal of the pancreas the liver is no longer capable of converting grape sugar into glycogen, but can still care for laevulose. The latter, therefore, would be stored up in the liver, while the former would pass over *in toto* into the blood. In diseases of the liver it should be much easier and more important, at least from a diagnostic standpoint, to produce an alimentary glucosuria with laevulose than with glucose.

The author reports the results of his observations in the production of alimentary laevulosuria, and glycosuria, in all of the liver cases that came under his observation in the course of a year. There were sixteen cases, including

atrophic cirrhosis, hypertrophic cirrhosis, syphilis of the liver, carcinoma, echinococcus, etc., etc.

In fifteen cases the test for laevulose was invariably positive; in ten cases the test for glucose was positive. The latter test was negative in three cases of chronic malaria with enlargement of the liver, and in two cases of icterus in syphilis.

The author concludes that laevulosuria, more than glycosuria, shows the insufficiency of the glycogenic function of the liver, and that in diseases of the liver the test for alimentary glycosuria should be made with laevulose and not with grape sugar.

Remarks on Two Rare Intoxications.—FRIEDEBERG (*Centralblatt fuer Inner^e Medicin*, No. 42, 1902).—The first case was that of intoxication due to the fluid extract of hydrastis. The patient, who had been advised to take twenty-five drops three times daily for uterine hemorrhage, took nine grams at one dose in order to get quick results. There followed burning in the stomach, nausea, dizziness, and finally unconsciousness. The intoxication manifested itself first and chiefly in the circulatory and nervous systems, and secondly in the digestive tract.

The second is a case of poisoning due to petroleum. The patient took two swallows from a glass, thinking it was whiskey. He suffered immediately afterwards from severe burning pains in the stomach. On the following day he experienced headache, loss of appetite, diarrhea and intense weakness. His chief complaint, however, was that everything tasted and smelled of petroleum. This phenomenon continued for six days. This could not have been due, for this length of time, to any local irritation, or the action of the petroleum itself. Though the patient was not a neurasthenic, this symptom was no doubt due to auto-suggestion.

Concerning Gastric Digestion in Cases of So-called Hypertrophic Cirrhosis of the Liver with Icterus.—KIRIKOW (*St. Petersburger Medicinische Wochenschrift*, No. 36 and 37, 1902).—The results of the author's observations on the above subject are summed up as follows:

1. The supposition of Hayem that the so-called hypertrophic, icteric cirrhosis of the liver (Hanot's disease), unlike the atrophic cirrhosis, results in a hyperpeptic gastritis, is not proven.

2. One cannot determine the nature of a cirrhosis of the liver from the nature of the gastric digestion.

3. In the examination of fourteen cases, but four cases of increased acidity were noted. In several a marked decrease of the acid was found. One must conclude, therefore, that there is frequently a diminution of the digestive powers in many of these cases.

4. In such cases the lower portion of the digestive tract plays the chief digestive role, providing the motility is good.

5. The conditions and variations in the consistency of the gastric contents cannot be brought into relationship with the course of the icterus.

6. Aside from the icterus, the period, the intensity, the duration of the disease, and the general condition of the patient influence the gastric digestion.

7. Much depends upon the anatomical and functional condition of the secreting cells and their innervation.

8. The acidity in these cases may rapidly decrease—in fact, the HCl may disappear entirely; there may be apepsia, increased peristalsis and diarrhea.

9. Even in atrophy of a large portion of the gastric mucous membrane, hyperpepsia may develop as a result of the increased action of the peptic cells in the healthy portion of the mucous membrane.

10. In the advanced stages of Hanot's disease there develops frequently a secondary inflammatory condition.

11. This condition does not necessarily result in dyspeptic symptoms, but may continue normally, in spite of the hypo- or apepsia.

12. Hyperchlorhydria in hypertrophic cirrhosis of the liver with icterus does not necessarily go hand in hand with hyperpepsia.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

Contribution to the Subject of the Relation of Acute Miliary Tuberculosis to Operations Upon Tubercular Nodes in the Neck.—WITTMER (*Breitraege zur Klinische Chirurgie*, Bd. 33, Heft 3).—Three cases reported from the Heidelberg Surgical Clinic furnish the author with the inspiration for this paper. The germs can be transported either by veins or lymphatic vessels. The more rapidly, of course, the larger the vessel implicated. Some authorities claim that it is necessary in case only a few germs gain access to the vessel, that the wall of the same should become primarily diseased and then the germs be carried from this point secondarily to other parts of the body. The third possibility is that no bacilli get into the vessels during the operation in cases where the disease of these vessels has existed at the time of the operation. Of course, here the final result would be the same. Of course, hemorrhage, narcosis, shock and all of these factors have their effect. The literature is said by the author to contain no other examples except the three reported by himself in which the whole system became infected in the way above mentioned. In the first two the symptoms came on immediately after the operation, while in the third, thirteen days elapsed before they manifested themselves.

Biliary Cholelithiasis.—ZALACKAS (*Le Progres Medical*, October 11, 1902).—Here are briefly reported two cases of peculiar interest. In the first stones had been discharged through a spontaneous fistula. There was at the same time evidence of the retention of bile, so the author operated and removed several stones from the common duct, with the result that the patient made a perfect recovery. The second patient presented a large abscess in the upper right side of the abdomen, and when this was lanced the knife came upon hard bodies, rightly supposed to be gall-stones. This patient also presented symptoms of retention, and at the operation which followed there were removed from the gall-bladder a large number of stones with a perfect definite result. The chief interest in these two cases lies in the fact that they presented unique and unusual symptoms of gall-stone diseases.

Plastic Closure of Defects in the Wall of the Common Bile Duct.—KEHR (*Archiv fuer Klinische Chirurgie*, Band 67, Heft 4).—As far as known to the author, such operations have never been performed except by himself. In two hundred cases he has only seen permanent fistula five times in the region mentioned. The wounds in the common duct have a most pronounced tendency to heal even though the bile which flows over and through them is infected. Healing occurs unless there be a stoppage of the duct somewhere near its outlet, and this takes place if the duct be cut in two, with exception of a narrow strip of mucous membrane on the under surface. Kehr does not sew wounds in the duct at all any more, but prefers to use the drainage tube in every case. In tying off the cystic duct in an operation, the wall of the common duct was included in the ligature, and consequently an immense hole cut in the latter structure. To

close this the author turned a flap from the wall of the stomach, and after sewing the same down packed gauze on its outer surface. This held perfectly. The subject is certainly one of interest and opens a new field.

An Anomaly in the Development of the Liver Presenting the Aspect of New Growth.—GIRARD (*Revue de Chirurgie*, No. 10, 1902).—It is claimed by the author that there is no parallel case in the literature of medicine. This patient was a child, three years of age, whose abdomen commenced to distend at the age of two. When seen there was an enlargement of the entire abdomen, great in extent and more pronounced high up. With a diagnosis of fibro-sarcoma of the liver an operation was performed, and it was found that the new growth was attached to the liver by a sort of pedicle. This was severed and the abdomen closed without accident. However, the infant died thirty hours after this procedure with febrile symptoms. The autopsy showed all of the organs to be normal, and, in reality, failed to explain the cause of death. In the new growth were found a large number of germs which the author failed to identify, and it is supposed that their development favored by the unusual conditions present led to the febrile cause of death. A long description of the microscopical appearance of the growth is given, and it must be said that it differs from any known tumor. A large number of embryonic cells were present and parts of the tumor certainly led one to think of an interference with the development of the organ and the later hyperplasia of certain cell forms.

A Further Report Upon the Treatment of Tic Douloureux by Division of the Sensory Root of the Gasserian Ganglion.—CHAS. H. FRAZIER and WM. G. SPILLER (*Philadelphia Medical Journal*, October 25, 1902).—This article has as its chief point for consideration the report of the present condition of the patient in whom Dr. Frazier did his operation one year ago. No recurrence of pain has been noted, hence the author regards this as a definite cure, and urges it in support of his method. In reasoning to the point that his method is superior to removal of the ganglion, the author lays stress on the fact that he avoids hemorrhage from the cavernous sinus. However, the reviewer suggests that the authorities who have most experience in this line consider as of little importance the complications just mentioned. Frazier regards the hemorrhage which accompanies the elevation of the ganglion from its base as a matter of grave import. However, it must be said that others have been much more troubled by bleeding from the middle meningeal artery and from the dura mater than they have from this first mentioned source, while the author almost disregards these two latter factors. It would seem that Dr. Frazier has before him a most difficult task in convincing the majority of surgeons that it is much easier or much less dangerous to divide the sensory root than it is to remove the ganglion, since a good deal of the hard work involved in freeing ganglion must be done before the root can be divided.

The Surgery of Metastatic Abscesses in the Kidney.—JAFÉ (*Mittheilungen aus den Grenzgebieten der Medizin und Chirurgie*, Band 9, Heft 4 and 5).—Sufficient weight has not been laid upon the fact that there is a very benign form of abscess in the kidney which is in many instances the proper subject of surgical treatment. These tend to break through into the fat capsule of the organ, but should be by all means operated upon. Such an abscess may break through into the pelvis of the kidney in a manner which is usually not considered of much importance, but one which may actually give rise to very grave complications. This also should be prevented by early operation upon the abscess cavity. It is a very difficult matter for pus to burrow from the kidney clear through to the skin of the loin, but this may be the only means of spontaneous cure in some

cases unless early operation has been done. The whole matter is very simple, however, after the decided focus be incised while still limited to the kidney. In the author's cases the abscesses were all on one side and in no instances multiple, at least this was true early or at the time of operation. In no case was communication at the pelvis of the kidney found. His patients ran a typical septic fever, course, pain was in the loin and the kidney was sensitive especially when felt from in front. The organ was also decidedly enlarged. The author reports five cases, one of which died after the removal of the abscessed organ. The other four recovered, an incision alone being made in these cases. The author recommends, in consequence, that such abscesses be merely opened and packed with gauze.

The Treatment of Hydatid Cysts.—LLOBET (*Archives Provinciales de Chirurgie*, October, 1902).—A sharp distinction is made between the treatment of cysts which have suppurated and those which have not. The latter class should be treated with buried sutures, and thus our author thinks the idea of a cure is accomplished. He has never lost a single case thus treated, which is certainly the best test. The suppurating cysts he sews up to the wall of the abdomen and drains. Of course this latter method greatly prolongs the period of convalescence, but it is nevertheless to be preferred to the idea of injecting germicidal fluids into the cavity. The obliteration of a cyst cavity depends more upon its situation in the liver than upon its size. The superficial one is rapidly obliterated by the pressure of the surrounding organs, while the deep one cannot readily collapse and must granulate until it is full. Two important complications are suppuration and the escape of bile into the cyst. The author gives a lengthy description of his technique, which consists principally in puncturing or incising the tumor and thus relaxing the tension to its wall so that the latter can be easily peeled out or sewn to the abdominal wall as may seem desirable. A table of all the cases on record is appended, and one may be surprised to know that one-hundred and one have been treated with drainage, thirteen by the author's method of intraparietal sutures, and twelve by other methods.

Contribution to the Surgery of Cleft Palate.—FERGUSON (*Annals of Surgery*, October, 1902).—The operative procedure advised in this article is intended to benefit those cases especially in which the palate is oblique and extending into only one nostril. Just before the anesthetic is commenced atropine is given to decrease the secretions of the mouth and pharynx. Chloroform is to be given by the spray method and the patient held in the Rose position, cocaine having been applied to all mucous membranes which can be reached. The flap is raised from the septum of the nose and the contiguous portion of the hard palate, and this is pulled down into the mouth. Then from the other side a flap is raised commencing at an incision along the alveolar margin; this is turned up into the nose and when the raw surfaces of these two flaps are approximated the mucous membrane of the lesser flap looks toward the nose while that of the first flap faces the cavity of the mouth. These are sewn together and in one case, which is detailed, a perfect result was obtained. It is said that the nasal twang so common after these operations can be entirely perfected by the patient learning German or French and forgetting English. Then upon relearning English the objectionable sounds fail to reappear.

Intracapsular Resection of the Prostate, the Normal Procedure.—RYDYGIER (*Centralblatt für Chirurgie*, No. 41, 1902).—The author does not wish to complicate the post-operative treatment by opening the prostatic urethra, or to cause more than the slight danger to the patient coincident upon the operation recommended above. Hence he will no longer practice enucleation of the organ, cap-

sule and all. He cuts straight to the posterior wall of the prostate, as Ferguson and Murphy of our own country do, using his retractors, etc., in their well-known way. In closing he compares this operation and its results very aptly to the enucleation of a struma, concluding that the cicatricial contraction in both cases tends equally to keep the respective tubes open, though they have been compressed before.

Late Nervous Complications in Fracture of the Lower Extremity of the Humerus.—NOUCHET (*Gazette des Hopitaux*, October 7, 1902).—Special reference is made to the paralysis which appears years after the fracture in childhood. The patient was nine years of age when the arm was broken, and eleven years after, while in the military services, he began to notice paralysis in the regions supplied by the ulnar nerve. In explaining this, the author reasons that on account of incomplete fracture just above the external condyle, the nutrition of the same is impaired, with the result that the bone develops longer on its inner than on its outer aspect, and in consequence there occurs a pathological cubitus valgus. He has found that the normal angle is about one hundred and seventy-two degrees, being somewhat greater in men than in women, while in the patients affected in the way now under discussion the angle is reduced to one hundred and fifty degrees. While this change is taking place the channel for the ulnar nerve is partially effaced, with the result that the pressure upon the nerve produces the paralysis referred to and the prognosis in these cases is extremely bad. The author has operated upon two cases and relates but slight improvement in one, while there was none at all in the other; still he advises that in such patients an attempt should be made to deepen the canal in which the nerve lies.

Decortication of the Lungs in Chronic Empyema.—KURPYJNWEIT (*Beitraege zur Klinische Chirurgie*, Bd. 33, Heft 3).—C. Awler, of New York, is given credit by the author as being the one to invent this operation. He was the first to perform it on the living, being at the time in ignorance of the work of Delorme on the cadaver. Our author has collected the histories of fifty-six cases in which this operation has been performed by various surgeons. Delorme considers that it is necessary as preliminary treatment to wash out the cavity carefully for several days before the operation is undertaken. As soon as the chest is open, the granulations are to be scraped off. The diaphragm and the pericardium are to be left untouched. After the thickened pleura has been cut it can usually be stripped off with considerable ease. The pulmonary fistula should be sewn up, else air may accumulate in the pleura from the bronchus. Some surgeons have contented themselves with merely incising the thick pleura, and have found that the lung expands sufficiently after such an operation. Delorme claims that good results are accomplished in from 30 per cent. to 40 per cent. of the cases. There is no doubt that in many instances the operation is of wonderful benefit to the patient.

Subperitoneal Resection* of a Pouch in the Urachus.—PAUCHET (*Bulletins et Memoires de la Societe de Chirurgie de Paris*, No. 26, Tome 28).—The patient was a boy five years of age in whom a fistula at the umbilicus was discovered shortly after birth. The escape of fluid was intermittent and had always occurred at intervals of four or five days. This fact was explained at the operation by the finding of a pouch in the course of the patent urachus in which the fluid of course accumulated. There was no evidence of cystitis; hence, an operation was undertaken. Without opening the peritoneum it was possible to resect almost the entire urachus, about the middle of which was found the pouch referred to, shrunken to the size of a hicory nut. Such cases are not especially rare, as is evinced by the fact that fifty-six are on record up to 1899. The patient may be

a few years old before the trouble makes its appearance, and it is well to operate early, else cystitis, with all its undesirable features, may complicate the picture.

Excision of the Gasserian Ganglion, with Report of Ten Cases Operated Upon by the Hartly-Krause Method.—MURPHY and NEFF (*Journal of the American Medical Association*, vol. xxxix, Nos. 15 and 16).—The authors take up in a comprehensive manner the anatomy, pathology, etiology, symptomatology, etc., involved and the history of the operative procedures adopted for the remedying of this intolerable condition. The disease in the form which demands the surgeon's attention is found in people over forty, and gives a very bad prognosis unless operative measures be resorted to. A few cases were not entirely cured even after removal of the ganglion; still in these it was never proven that the structure had been entirely removed. Murphy has deviated from the original technique of the operation, with a result that he gets easier access to the ganglion. Where trouble with the middle meningeal is experienced, he considers the ligation of the external carotid the "legitimate" means of controlling the same. He considers that the high bone opening usually made necessitates the needless injuring of the temporal lobe in elevating the same. An unnecessarily large number of cases have been drained, thus exposing the patients to the danger of sepsis. In ten cases the authors had three deaths, and found in the forty-two cases collected from the literature that the mortality was fifteen per cent.

Splenectomy and the Talma Operation in Banti's Disease.—TANSINI (*Archiv fuer Klinische Chirurgie*, Band 67, Heft 4).—One cannot consider that the removal of the spleen has accomplished much in removing the liver symptoms in this condition. However, the author has produced decided benefit in the way indicated by the title of this paper. He has operated, however, upon but one such case, which he reports. He considers that in removing the spleen he takes away the source of poison production, and by doing the Talma operation he restores the normal circulatory conditions. He found at the operation thirteen quarts of fluid in his patient's abdomen, and about four weeks later he punctured it and removed three and one-half quarts. There has been no reaccumulation since that time. The patient is now in first-class condition.

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

Citrophen—A Contribution to the Study of Its Therapeutic Properties.—ALFRED LEFEBRE (*These de Paris*, 1901, No. 653; *Bul. gen. de Therapeutique*, 1902, No. 11).—The dose of citrophen for adults is from one to three grams daily; for children, not over one gram daily in doses of one-fifth gram each. As it is but slightly soluble in water it cannot be prescribed in solution, and is best given either in capsules or in powders which are to be dissolved, before taking, in a little seltzer water or lemonade, in both of which it is readily soluble.

The drug has a very agreeable taste, which makes it doubly useful in pediatric practice. It is very rapidly absorbed by the intestine; twenty minutes after its administration it can be detected in the urine by means of the general test for salicylates, a few drops of ferric chloride solution turning the urine a Burgundy red.

Its therapeutic value depends upon its antirheumatic, analgesic and antither-

mic properties. In rheumatism it acts like the salicylates, although it sometimes fails to produce the desired effect where sodium salicylate effects a cure. It does not, however, produce tinnitus aurium, and even in excessive doses is well borne by the stomach. Albuminuria, hematuria, cutaneous eruptions have never been observed. Citrophen is particularly efficacious in subacute rheumatism.

Its chief drawback is the profuse and often disagreeable sweating which it produces. However, since these sweats are not accompanied by a corresponding cardiac depression, they may be considered useful rather than injurious. Moreover, they do not always occur. It is a powerful analgesic and as an antipyretic may be employed with benefit in nearly all febrile affections.

On the Antagonistic Action of Chlorides and Bromides in Epilepsy.—M. LAUFER (*Thèse de Paris*, 1901, No. 281; *Bul. gen. de Therapeutique*, 1902, No. 11).—According to Richet and Ed. Toulouse, the organism when deprived as far as possible of its chlorides becomes thereby more sensitive to the action of bromides. The physiologic rationale of this method is that by depriving the cells of the body of one of their normal articles of nutriment we cause them, in their effort to find a substitute, to absorb more actively some medicament.

From the beginning this method has shown an increase in the activity of bromides under the influence of a diminished salt supply, or as the French term it, of hypochloruration. Moreover, it is with a strict milk diet that the bromides show their greatest activity.

The process of hypochloruration is quite free from danger, for as little as five grams of salt suffice to fulfill all the vital functions. The diet is best made to consist of three litres of milk containing one gram of salt each and a pound of ordinary bread containing two and one-half grams of salt. This gives us five and one-half grams daily, which is quite within the limits of safety. Under this regimen considerable of the administered bromide is retained in the tissues, replacing there some of the chloride.

Accordingly, in epilepsy the dietary plays an important part and should on no account be neglected.

Conversely, salt drives the bromides out of the tissues, replacing them in the cells and this hastens its elimination. Accordingly, when we pass from a milk diet to a mixed one, the dose of bromides should at least be doubled. The ordinary full diet contains fifteen grams of salt, and this drives out of the organism quite twice this amount of sodium bromide. On the other hand, on passing from a mixed to a milk diet the dose of bromides should be decreased by half.

The Medical Treatment of Appendicitis.—BOURGET (*Die Heilkunde*, 1902, p. 413).—The writer claims not to have had a single death from appendicitis in the last ten years. He ascribes this to his method of treatment, which consists in cataplasms and irrigation of the bowel with water and oil. Operative interference he considers indicated only in the interval after a number of attacks, never during the attack itself. He considers the usual treatment by means of ice and opium responsible for the great increase in the number and severity of cases of appendicitis throughout the civilized world. "It is difficult to imagine," he writes, "a worse treatment; it is indeed just this mode of treatment that best serves the cause of the surgeon, rendering necessary and almost inevitable sooner or later his armed intervention." It is interesting and amusing to find at this date a writer of prominence who has the courage of his convictions and is willing to defend the old theory of a typhlitis stercoralis and its treatment by means of purgatives. It is not to be expected that his views will find many adherents.

Calomel in Pediatrics.—S. SCHOEN-LADNIEWSKI (*Jahrb. f. Kinderheilk.*, vol. 56, No. 2; *Centralbl. f. d. ges. Therapie*, 1902, No. 9).—The author formulates

the conditions under which calomel, first introduced in the treatment of diseases of children by Trousseau, should be used. As a gastro-intestinal disinfectant, especially in cases of colic due to flatulence, it is more efficient than any other drug. It has an equally beneficent action in beginning dyspepsia with belching and gray stools, in acute febrile gastritis, in subacute and chronic gastro-intestinal catarrh, in cholera infantum. It is almost a specific in the so-called eclampsia ex indigestione. In catarrhal icterus of children the writer uses calomel exclusively. The child has hardly taken a few doses when the icterus begins to fade, the nausea and ructus cease, and in five days at the most the child is well. The writer warns earnestly against giving calomel to children as a purgative, but has found it to act well as a diuretic, especially in cases of hydrops due to scarlatinal nephritis.

Doses of 0.005 to 0.02 (grain one-twelfth to grain one-third), according to the child's age, given every hour or two, always suffice as a gastro-intestinal disinfectant. Larger doses, 0.02 to 0.05, given three times daily for four days, must be administered if we desire a diuretic effect; after discontinuing the drug for four days, we may begin again to give it. Calomel is best given as a powder mixed with sugar; as it is somewhat unstable it should always be put up freshly. With toothless children we do not need to fear ptyalism, but older ones should be given a chlorate of potash mouth-wash and taught to take care of their teeth.

Borax in the Treatment of Obesity.—C. GERHARD (*Ther. d. Gegenwart; Centralbl. f. d. ges. Therapie*, 1902, No. 9).—It is often desirable to administer some drug as an adjuvant to the diet in reducing fat. Accordingly, Gerhard has tried sodium baborate in a number of cases with encouraging results. Physiological experiments have shown that in animals and man borax taken regularly interferes with the proper assimilation of food. The result of observation made on three patients may be summarized as follows: The three individuals were not very favorable subjects for successful treatment. Two of them had a hereditary tendency to obesity, the third has injured his system by means of excessive alcoholism and was suspected of beginning contracted kidney. Corresponding to the unfavorable nature of the material, the results were not very striking. In the first case, after a treatment of thirty-four days, a loss of fifteen pounds was produced; in the second case only a moderate reduction was observed; the third, treated for some twelve weeks, lost thirteen pounds. The addition of a fat reducing diet would doubtless have greatly increased the loss of weight, but in that case it would not have been possible to judge what part was played by the borax. A dose of 0.25 three times daily produces little or no effect; one grain three times daily produces unpleasant gastro-intestinal disturbance. The proper dose seems to be 0.5 three times daily.

The Therapeutic Value and the Mode of Action of Venesection in Uremia.—WALKO (*Centralbl. f. d. ges. Therapie*, 1902, No. 7; *Zeitschr. f. Heilk.*).—The writer reports eleven cases, from Professor v. Jaksch's clinic, in which the withdrawal of 500 to 900 c. c. of blood followed by salt water infusion produced an exceedingly favorable effect upon the uremic attack. Just how the beneficial action of venesection in this case is produced is not yet clear. The theory that by its means a certain amount of the poison responsible for the uremic attack is removed from the system has, according to Walko, no real basis. Nor can the change of blood pressure or of the osmotic pressure of the blood be held responsible, for neither is profoundly modified by so slight a bleeding. According to Walko, the poisons circulating in the blood in uremia irritate the vaso-motor center in the brain, thereby producing a tonic spasm of the arterioles, particularly in the kidneys. As a result the renal circulation is slowed and the diuresis lessened. A considerable withdrawal of blood by means of venesection lessens

this vascular spasm and in this manner produces its favorable results. Hot baths are still a favorable mode of treating uremia. Leube, however, showed some years ago that diaphoresis may have an unfavorable effect on the uremic attack, indeed may even produce one, if diuresis is not also increased. Sweating, to be sure, causes a loss of water, but since practically none of the solid constituents of the blood are excreted by the skin, the poisonous substances in uremic blood are thereby only concentrated. Hypodermoclysis following venesection produces its most strikingly favorable results in cases of uremia due to acute nephritis.

The Following Prescriptions Have Been Found Useful for Intestinal Antisepsis:

1. **R** Carbon. depurat 0.3
 Pancreatini 0.1
 Benzonaphtholi 0.5
 M. D. tal. dos. No. xii.
 S. One powder every three hours.
2. **R** Argent. colloid 0.3
 Sacch. lactis 3.0
 Glycerini,
 Aq. dest. aa. q. s.
 M. f. pil. No. xxx.
 S. Two pills three times daily before meals.
3. **R** Resorcin. resublim.,
 Bismuth. salicyl aa. 5.0
 Sod. sulphat.,
 Pulv. rad. rhei aa. 10.0
 Sacch. lactis 15.0
 M. **S.** Take as much as will go on the tip of a knife, three times daily.
4. **R** Calc. carbon. precip 0.5
 Bismuth. subgall 0.2
 M. f. p. D. tal. dos. No. xii.
 S. One powder every three hours.
5. **R** Mentholi 1.0
 Tr. cort. aurant 10.0
 M. **S.** Fifteen drops three times daily after meals.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

R. B. H. GRADWOHL, M. D.

Eosinophilia in Filiaris.—WILLIAM J. CALVERT, M. D., U. S. Army. (*The Johns Hopkins Hospital Bulletin*, June, 1902).—The writer noted a large retroperitoneal tumor during the course of an autopsy on a native Filipino dead of plague. The mass was semi-translucent, soft and made up of a number of sacs containing fluid. The sacs did not freely communicate. The fluid on microscopical examination revealed nothing of note. The right inguinal and iliac glands were enlarged. Pieces of the several organs fixed in Zenker's fluid showed numerous eosinophilic leucocytes in the capillaries. In lymph vessels in the areolar tissue about one of the iliac lymphatic glands, sections of an adult filaria were found. The tissues immediately surrounding the lymph vessels were infiltrated with numerous eosinophiles. No traces of trichinosis were ob-

served. The presence of a worm surrounded by eosinophiles, some of which were observed passing through the involved lymphatic gland to the general circulation, eosinophiles in the various organs, and an absence of an increase of eosinophiles in plague, considered in the light of the recent literature on the blood in parasitic disease, led Calvert to think that eosinophilia was associated with filiaris. A study of specimens of blood from four hundred and twenty-six cases demonstrated positive findings in two cases. Later a fourth case was found, and a fifth case reported in Manila, which, however, was not examined. Systematic hourly blood counts and blood examinations were made in these cases. All of the cases showed a decided eosinophilia associated with filiaris. These facts led to the conclusion that in the early stages of filiaris, leucocytosis, with an increase of the eosinophiles may be looked for, and that as the disease progresses, the leucocytosis and increase in eosinophiles gradually decrease to normal.

Bad Rice and Beri-Beri.—SURGEON SEMBILAN (*The Sei-I-Kwai Medical Journal*, August 31, 1902).—Sembilan reports to the Japanese government that very probably beri-beri is increased through the consumption of certain uncleansed parts of rice. The disease is steadily increasing among the Malays for that reason. During the period when the natives were compelled to use their own grain, hulling and washing it themselves, the poisonous parts of rice were removed effectually and the disease was held in abeyance. At the present time imported rice is cheaper than that raised by the natives themselves, so very little of the home article is consumed. This cheaper imported article is not well cleaned. Beri-beri is constantly on the increase. Beri-beri causes more than two-fifths of all deaths among Chinese; the actual mortality due to it is ninety-seven for every ten thousand—nearly one per cent.

A Case of Chronic Lymphatic Leucemia, with Lymphosarcoma of the Sternum and Ribs.—CHARLES F. CRAIG (*Medical News*, October 4, 1902).—The patient was a private in the 14th Infantry, admitted to the Presidio Army Hospital in September, 1901. He gave a history of several attacks of diarrhea two years before, lasting once nine months. His present illness began with cramps in the abdomen. He was anemic, with pale mucosæ. Enlarged spleen was present, with general glandular enlargement. Blood examination at first showed nothing but a leucocytosis. In October, marked dyspnea developed, with febrile phenomena and death. The increase in the leucocytes was confined mainly to the lymphocytes. The greatest number of lymphocytes found was 336,000 to the cubic mm. At this time the red blood corpuscles numbered 1,352,000. The ratio of the polymorphonuclear leucocytes to the small lymphocytes was, as a rule, about one to 1,200; the ratio of the eosinophiles to the small lymphocytes about one in 2,200.

Autopsy.—Covering the sternum and ribs, and lying between them, on both sides of the chest, was a large amount of newly formed tissue resembling cartilage in appearance. The ribs and sternum were obliterated. This material covered the pericardium and projected in small nodular masses into the pleural cavity. The mesenteric glands were enlarged. Liver was pale and not enlarged. Spleen was $18 \times 10\frac{1}{2}$ cm. It showed minute hemorrhages beneath the fibrous capsule, which was thickened. The organ was congested. The cortical markings in the kidneys were indistinct. Stripping of the capsule disclosed numerous small petechial hemorrhages.

Anatomical Diagnosis.—Chronic lymphatic leucemia; acute parenchymatous nephritis and pleurisy with effusion.

Microscopic Diagnosis.—Sections of the liver showed a diffuse distribution of small lymphocytes through the capillaries.

The excessive accumulation of lymphocytes produced lymphomata in places.

The spleen was crowded with leucocytes, most of them being lymphocytes. The Malpighian corpuscles were greatly enlarged and composed entirely of small lymphocytes, the condition in place really being lymphomatous. The kidney showed collections of lymphocytes in the intertubular capillaries. Many lymphomata were observed. Sections of the lymphatic glands showed enormous collections of small lymphocytes, the entire glandular tissue being composed of them.

The tumor affecting the ribs and sternum was cartilaginous when cut with the knife. Sections of the tumor showed a delicate fibrillated reticulum enclosing in its meshes numerous cells, large numbers of which resembled small lymphocytes.

Small pieces were seen detached, in the sections, which showed the normal structure of bone. The histological structure of the tumor is best described simply as a reticulated connective tissue framework enclosing large blood spaces and numerous cells resembling the small lymphocytes.

Conclusions.—This was a case of chronic lymphatic leucemia, complicated by diffuse lymphatic infiltration of the sternum and ribs. Different writers name this condition differently. Some call it lymphosarcoma. Other names are angiosarcoma and lymphadema ossium. Klebs, Hektoen and others call it myeloma.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

Diseases as Indications for Artificial Interruption of Pregnancy.—A. PINARD (*Annales de Gyn. et d'Obstetr.*, September, 1902).—After briefly surveying the history of artificial interruption of pregnancy in France, the author gives *in extenso* his personal opinion on this question, and corroborates his standpoint by citing numerous observations of his own and those recorded in literature. He begins with arguing the religious and legal side of the problem. The physician must be conceded the right of saving the patient's life by interrupting pregnancy, even without her consent, because very often, especially in all toxic conditions, she is in a state of disturbed consciousness. As regards diseases which may necessitate interference in an existing pregnancy, Pinard distinguishes between those which are produced by the pregnancy itself (such as hydramnios, hemorrhages, hyperemesis, albuminuria, eclampsia, etc.) and those which are aggravated by the pregnancy (such as diseases of the respiratory, circulatory or urinary systems). In cases of uterine hemorrhages he advises interruption of pregnancy if the pulse rate is constantly above 100. In pulmonary tuberculosis he treats the disease and watches the pregnancy. In kidney lesions the decision rests with the general impression of the patient, granted that the quantity of urine voided in twenty-four hours does not decrease to less than 800 ccm. Pulse and respiration form the criteria in heart lesions. Artificial abortion in the first half of the pregnancy has yielded more satisfactory results than interference during the latter half. Twenty-two thousand seven hundred and eight women have been delivered in Pinard's clinic between 1890 and 1900. Of these, in only twenty cases was interruption of pregnancy deemed necessary on account of internal diseases, the cases of contracted pelvis being excluded from these statistics. In fifteen of these twenty cases the results attained were satisfactory.

Delivery Complicated by Ovarian Tumors.—M. SEMON (*Monatsschr. fuer Geb. und Gyn.*, September, 1902).—The author gives a clear *expose* of this subject,

and suggests the following way of dealing with this condition: Any effort to terminate labor by means of forceps, cranioclast or version in order to overcome the obstruction must be considered bad practice. The maternal mortality from peritonitis, rupture of the uterus, rupture of cysts, etc., has been found in this procedure to be fifty per cent. and higher. The obstruction can be removed by (a) reposition; (b) puncture or incision per vaginam; (c) ovariectomy during labor. Reposition implies, in cystic tumors, the danger of rupture; incision the possibility of infection. After reposition there has been observed, both in cystic and solid tumors, twisting of the pedicle and necrosis subsequent to confinement. Ovariectomy during labor offers the best chances to mother and child; it is the only rational treatment. Ovariectomy may be performed either through the vagina or abdominal wall, according to the conditions found. The question which has not been settled is, whether the fetus should be removed by means of a cesarean section, or its expulsion should be left to the natural forces after ovariectomy has been performed. The writer advocates the latter practice. While statistics compiled by McKerron show a mortality of fully eighty per cent. in ten cases in which cesarean section was performed under these conditions, the author finds that in seven cases in which the treatment as regards terminating the delivery has been entirely expectative, the mortality is *nil*.

In the author's case the obstruction was caused by a sarcomatous tumor of the right ovary of the size of a child's head. Ovariectomy was performed, and shortly after the operation a full-term living child was born spontaneously in foot presentation. Lying-in period was uneventful. Two years later patient was delivered of another healthy child.

A Case in Which Pregnancy Occurred After the Menopause.—REGINALD H. HANN (*Jl. of Obstetr. Brit. Emp.*, September, 1902).—Menstruation ceased when the woman was forty-six years of age. All sexual feeling was lost. Three years later she gave birth to her thirteenth child, a healthy male. After weaning her baby, when a few months old, the menses returned, the flow lasting one day only, and was accompanied by severe pain recurring every four weeks. Sexual desire reappeared with the first period.

Diagnostic Value of Contractions in Tumors of the Female Internal Generative Organs.—CATURANI (*Arch. Ital. di Gin.*, June, 1902; rev. *Jl. of Obst. Brit. Emp.*, September, 1902).—The writer describes a tumor which resembled in size and shape a five-months' pregnant uterus. By the bimanual examination the uterus was found lying to the front, and it seemed as if it moved with the tumor and was attached to it. During palpation it was distinctly noticed that the tumor became tense, firm and rigid. The diagnosis of multiple fibroids was made. At the operation the tumor was found to be a cyst of the left ovary with a twisted pedicle, adherent to the intestines and the posterior wall of the uterus.

In another case, in which the same contractile character was noticed, on operation a suppurating cyst of the broad ligament was met with.

The author, therefore, concludes that contractility during palpation may be found in (1) the pregnant uterus; (2) the pregnant tube; (3) the tube with inflammatory or fluid contents; (4) a uterus containing a submucous fibroid; (5) the interstitial and subserous fibroid, and (6) some cysts. Its value as an aid in differential diagnosis is not so great as has been hitherto supposed.

Partial Contractions of the Pregnant Uterus Simulating Myomas.—F. AHLFELD (*Zeitschr. fuer Geb. und Gyn.*, vol. xlvii, part 2, 1902).—The writer describes the following case: Patient, forty-one years old, multipara, apparently in the last month of pregnancy, somewhat anemic from several hemorrhages which had oc-

curred of late. Abdominal wall exceedingly thin. Below the umbilicus an oblong tumor, eight cm. in length can be distinctly felt, apparently belonging to the uterine substance. Its consistency is markedly tenser than that of the adjoining uterine wall. To the left of this tumor another area of firmer consistency, about the size of the palm of the hand, is found. It is flat and not protruding like the first mentioned tumor. Diagnosis of fibromyoma was made.

A few days afterwards labor began with severe hemorrhages, due to a placenta previa. Patient died. At the post-mortem it was ascertained that there were no myomas in the uterus, and the fact was proven that the tumor and hard resistance felt were caused by a partial contraction of the uterus. This phenomenon was known to exist in the early stages of pregnancy, but so far has not been described near the normal end.

Typhoid Fever During Pregnancy—Widal's Reaction in Mother and Child.—SANTI (*Boll. del Soc. Tosc. di Ost. e Gin.*; rev. *Jl. Obst. Brit. Emp.*, September, 1902).—The patient, a woman aged twenty-four, IIIpara, took sick with typhoid fever in the beginning of November, being the eighth month of her pregnancy. Widal's test was positive. The fever and diarrhea disappeared November 20th, and the patient gradually improved. During the whole course of the illness the fetal heart could be easily heard. She was delivered of a healthy child, 2700 grams of weight, December 24th. The blood of the child gave Widal's reaction. A dilution of one-sixtieth of maternal blood produced marked agglutination of the bacilli, but in a dilution of one-twentieth of the blood of the baby the bacilli retained their motility. The writer does not believe that the fetus actually contracted typhoid fever, or Eberth's bacilli passed into the blood of the fetus, but thinks that only the substances produced in the maternal blood which have the agglutinating power had entered the fetal circulation.

The Passage of Agglutinin From Mother to Fetus in Typhoid Fever.—A. ROUS-LACROIX (*La Presse Medic.*, April 2, 1902; rev. *Phila. Med. Jl.*, August 30, 1902).—The author divides the cases in which the fetus is born during an attack of typhoid fever into those in which the fetus is infected during pregnancy and contains typhoid bacilli; those in which the toxin is transmitted through the placenta, the fetal blood giving the Widal reaction; and those in which the fetus escapes all infection. He reports the case of twins, almost at term, the mother dying of typhoid fever. Labor occurred on the eleventh day of the disease. Widal reaction was not obtained from the blood of the infants before or after death. The mother's blood gave a positive reaction. Another case in which an eight-months' child was expelled on the thirteenth day of illness recovered. While the blood of the mother, the placenta and umbilical vein gave positive Widal reaction, that of the fetus was negative. When miscarriage occurs late in the infection, agglutinin will probably have passed to the fetus. The agglutinin seems to be stopped in the liver of the fetus before becoming diffused throughout the organism.

Typhoid Infection of the Uterus.—LARTIGAU (23d Proceedings of the New York Pathological Society; rev. *Centralbl. fuer Innere Med.*, 1902, No. 14).—During an attack of typhoid fever in a female patient, an extrauterine pregnancy was diagnosed and removed by operation. Patient died a few days later. Typhoid bacilli and streptococci were found in the endometrium which showed the histological signs of endometritis.

In another fatal case of typhoid infection in a girl, a hemorrhagic endometritis was found and the presence of typhoid bacilli ascertained in the endometrium.

Typhoid Bacilli in the Fallopian Tube.—JOS. KOCH (*Monatsschr. fuer Geb. und Gyn.*, August, 1902).—The author found typhoid bacilli in the muco-purulent contents of the right fallopian tube of a patient who took suddenly sick with the symptoms of an acute salpingitis. She had typhoid fever twelve years ago. The author discusses the possible ways of infection: (1) from the peritoneal cavity by way of the abdominal end of the tube; (2) from the uterine cavity; (3) by means of blood infection, and (4) through the lymphatic vessels. The author is inclined to accept for his case the theory of an infection from the uterine cavity, because there was another saprophytic bacterium cultivated besides the typhoid bacillus.

Infection of an Echinococcus of the Liver by Typhoid Bacilli.—K. HUEHN and M. JOANOVIC (rev. *Centralbl. fuer Innere Med.*, 1902, No. 13).—Patient took sick with typhoid fever middle of December, 1900. End of March, 1901, attack of severe pain in the abdomen, with icterus. Laparotomy was performed June 19th. A suppurated echinococcus cyst was found. From the pus the typhoid bacillus, streptococcus, and staphylococci were cultivated. It is the first case of this kind known in literature.

Suppuration of a Dermoid Cyst of the Ovary Caused by Infection with the Typhoid Bacillus.—E. JONAS (*Med. Bull. of Washington University*, 1902, No. 1).—Patient was thirty-eight years old. She had typhoid fever in September, 1900. She was admitted to the hospital May, 1901. Pulse, 120 to 150; temperature, 102° to 104°. A large cystic tumor was found in the right half of the abdomen, probably originating from the right ovary. Abdomen was tympanitic and extremely sensitive to pressure. Diagnosis of probable twisted ovarian cyst with infection was made. At the operation extirpation of the tumor was found to be impossible and incision and drainage decided upon. The cyst contained pus, sebaceous masses and hair. Patient made a complete recovery. Bacteriological examination of the contents revealed a pure infection with the typhoid bacillus. This is the sixth case of this kind reported in literature.

Infection of Ovarian Cysts During Typhoid Fever; Report of Two Cases.—M. J. LEWIS and R. G. LE CONTE (*Am. Jour. of Med. Science*, October, 1902).

CASE 1.—Five weeks before admission patient was delivered of a full term child. She was then sick with fever and confined to bed for three weeks. On admission temperature was 104°; pulse, 120. Diagnosis of puerperal sepsis was made. A Widal reaction proved positive three days later. For the next three weeks the patient presented symptoms of a moderately severe case of typhoid fever. During the fourth week the character of temperature changed and it began to assume a hectic type. A vaginal examination revealed a large fluctuating mass in Douglas' cul-de-sac. Vaginal incision was made and a quart of greenish fetid pus, with many cheesy particles, evacuated. The diagnosis of suppurating teratomatous cyst was assured. The pus showed the typhoid bacillus in pure culture. Following the operation the patient had a relapse of the typhoid fever but recovered finally completely. Several months later the cyst was removed through an abdominal incision.

CASE 2.—The typhoid infection ran a normal course, when on the thirty-sixth day the temperature suddenly rose. On the twenty-fourth day of the relapse patient felt acute pain in the epigastrium and rectum. An examination revealed bulging in Douglas' cul-de-sac. Sense of fluctuation was conveyed to the left lower quadrant of the abdomen. An ovarian cyst of the left side was removed through abdominal incision. Patient made a perfect recovery. Cultures made from the pus of the cyst gave typhoid bacilli.

The writers cite seven other cases from literature.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

Proper Methods of Handling Cow's Milk as the Chief Factor in Successful Artificial Infant Feeding.—PALMER (*Chicago Clinic*, September, 1902) says that the degrees of modification of cow's milk, the minute percentages generally regarded as essential, are not as important as the consideration of the amount of filth the dairyman has permitted to invade the milk. "It is to the dairyman and not to the scientific milk modifier that we must look for the future of infant feeding."

The author then describes the methods in use at Clover Farm, an Illinois dairy.

The cattle is all healthy stock, tuberculin tested by the state authorities, the herd at present being almost altogether Holstein. Sick cows are at once separated from the herd, and the barns used by them are never occupied by healthy stock. The only water used is artesian well water. Cows are groomed regularly, and the udders are washed twice daily. The food used is ensilage, to which bran, shorts and gluten are added. In summer, pasturage under very careful supervision is allowed.

The milking is done at 3 A. M. and 3 P. M., in stables with cement floors that can be scrubbed.

The udder washers precede the milkers, who are compelled to be absolutely clean. They use buckets covered with a cap holding in place two thicknesses of sterile gauze, with absorbent cotton between. The first milk drawn from each udder is put aside. The milk reaches the separators within five minutes after the milking. The excess of cream or milk which must be taken out to guarantee the standard of 4 per cent. is removed, and the rest again mixed. It is now run into the cooler, cooled to 45° F., and then poured into bottles and sealed. The entire process does not take over ten to twelve minutes. The bottles are shipped to the city packed in shaved ice. All articles used about the dairy are sterilized daily. It has been found possible to ship the milk from Illinois to Europe without deterioration.

Malignant Diphtheria.—MARFAN (*Rev. Mens. des Mal. de l'Enf.*, October, 1902) reviews the cases of malignant diphtheria under observation at the Hospital des Enfants-Malades during 1901 and 1902. There were one hundred and forty-three cases of this class, ninety-one of which terminated fatally, 61 per cent. In all there were one thousand three hundred and three cases of diphtheria with a mortality of 20.7 per cent.

The symptom complex of the fatal malignant cases may be summarized as follows: Anginal phase, severe angina with formation of heavy, thick, fetid membrane, confluent over tonsils, pillars of fauces and vault of pharynx, with great swelling and some ulceration of the subjacent parts; a coryza with sero-hemorrhagic discharge; marked glandular swelling, and peri-glandular edema. The temperature is not greatly elevated, pulse rapid and feeble, marked prostration, and nervous depression. Constant albuminuria. Under the influence of the antitoxin the throat clears slowly, but incompletely, without improvement of all the general symptoms.

About the fourteenth or sixteenth day the second phase sets in, called by Marfan the cachectic phase. This is characterized by great and progressive pallor, marked apathy often amounting to stupor, often accompanied by paralysis of the soft palate, progressive weakness of the pulse, increase in the size of the liver which marks the extreme cardiac dilatation, and finally the vomiting which precedes death.

Post-mortem examination of a series of cases showed marked cardiac dilatation with myocardial degeneration. Cardiac thrombosis (not pre-agonal) in many cases. At the point of adhesion of the thrombi, evidences of endocarditis were not infrequently found.

The degree and the constancy of these cardiac lesions appear to the author as proof of their importance in determining the fatal issue in these cases, though they are not always responsible for death.

The liver showed extreme passive congestion, the kidneys both inflammatory and degenerative changes.

Except in the cases where there was direct extension of the diphtheritic process to the bronchi, or a secondary broncho-pneumonia, the lungs showed merely congestion.

Emboli in various organs were found at times.

Bearing in mind the great efficacy of antitoxin in non-malignant diphtheria, the author has set himself to the task of explaining its comparative inefficacy in these cases. Bacteriological examinations which he had instituted proved the almost invariable presence of a mixed infection. Some of the cases appeared to be an unquestionable streptococcic infection. But Deguy and Legros were able to cultivate in many of the cases a bacterium which did not grow well in any culture media, unless hemoglobin were added.

The germ appeared as a small, non-capsulated, *motile* diplococcus, staining positively by Gram. Animal inoculations showed it to be very virulent, mice and guinea-pigs succumbing promptly to a septicemia induced by it. The authors call this germ the diplococcus hemophilus perlucidus, and believe that it belongs in the general class of the streptococci.

Whether this germ can produce its effects, except in conjunction with the Klebs-Loeffler, remains to be proved.

Marfan explains the lack of action of the antitoxin in these cases by presuming that the serum is antidotal only to the Klebs-Loeffler, but is without effect on the germs producing the secondary meta-diphtheritic affections.

For the treatment of these cases large doses of antitoxin, frequently repeated, were given, though Marfan emphasizes the fact that early administration is of more importance than size of dose.

In addition, stimulating treatment is used throughout. By this treatment some of the malignant cases were saved. It seems that this secondary infection only occurred in those cases in which the toxemia was not neutralized by the antitoxin; in other words, that the streptococcic late infection could only occur in a system overwhelmed with the diphtheria toxemia. In view of this fact, he thinks that the antitoxin should be administered in all suspicious cases as soon as possible, without waiting for bacteriological confirmation of the diagnosis of diphtheria.

Diphtheria, with Reference to the Use of Antitoxin.—KERLEY (*Archives of Pediatrics*, October, 1902), lays down the following rules:

1. With a visible membrane, *inject at once* and take a culture.
2. In croup, inject if there is inspiratory and expiratory obstruction.
3. Patients should be seen at twelve-hour intervals.
4. Reinject in twelve hours, unless there be marked improvement.
5. Unless improvement is continuous, reinject at twelve-hour intervals until membrane disappears.

6. Dosage: two thousand units to a child under one year, amount to be repeated if necessary; to a child over one year, three thousand units under same conditions.

[This paper was read before the American Pediatric Society in May, 1902. In the discussion that followed, the principles suggested were in the main advocated as being correct.—Ed.]

A New Sign of Pleural Effusion in Children.—KELLEY (*Archives of Pediatrics*, October, 1902) says that in the course of symptoms which indicate the early stage of pleurisy, among which is the attitude of lying upon one side, or pressing on one side, this position changes, and the patient instinctively turns and prefers to lie upon the back or be propped up high in bed. The child avoids bending toward that side or pressing upon it. This is a sign of effusion, of considerable bulk, and poured out rather rapidly. Where the effusion *has lasted for a long time* the patient may prefer to lie on the affected side, because a tolerance of the pressure of the fluid has been established. The explanation of the phenomenon offered is that lying upon the back or sitting up causes the least possible pressure of the effusion against the compressed lung and the heart and great vessels, thus allowing greatest freedom of breathing and circulation.

Renal Decapsulation in a Child.—CAILLE (*Archives of Pediatrics*, October, 1902), reports a case of a five-year-old child who had an acute nephritis after an attack of measles at the age of two. There was apparent recovery, but during the next three years she had several other attacks. Before operation the child was generally edematous, heart markedly enlarged, urine showed albumen and hyaline and granular casts. Renal decapsulation was performed on both kidneys, which at the time of operation were found to be in a state of chronic parenchymatous inflammation.

Three months after operation the child though distinctly improved, was not well.

The author thinks that the proposition to treat Bright's disease surgically should be met without prejudice, seeing the uselessness of the medical treatment. He suggests inspection of the kidneys through lumbar incision, in which cases of acute nephritis (not secondary to heart lesions) do not clear up in a reasonable time, and would advise decapsulation of both kidneys should they appear swollen and enlarged.

Medical Treatment of Tuberculous Peritonitis.—COMBY (*Arch. de Med. des Enf.*, October, 1902) reports several cases, both of the ascitic and of the dry form of tuberculous peritonitis, in which medical treatment brought about complete cure. The measures used were absolute rest in bed, flat on the back, and abundance of fresh air (whenever possible patients were kept in the fresh air continuously).

Alimentation, with fats and proteids, was pushed to the extreme limits of the digestive powers. As adjuvants cod-liver oil, either pure or with creosote, glycerophosphate of lime, and lecithin were given, with inunctions of creosote, etc.

Whenever possible, as soon as the condition of patients permitted, they were sent to the seashore or the country.

The author believes that laparotomy is only indicated in the encysted or suppurative forms of tuberculous peritonitis. In no other form does laparotomy offer any better chance of recovery than the simple plan of treatment outlined above, and laparotomy entails additional risk to the patient.

ORTHOPEDICS.

IN CHARGE OF

MALVERN B. CLOPTON, M. D.

Resection of Five Inches of Tibia—Complete Reformation of Bone.—MARTIN and LEBEUF (*New Orleans Med. and Surg. Jour.*, September, 1902).—On account of an accident five inches of tibia were removed, leaving only a narrow strip of periosteum behind. In three months' time there had been an almost complete replacement of the removed bone, and calcification seemed complete.

The Correction of Deformities Following Osteitis of the Knee.—WISNER R. TOWNSEND (*N. Y. State Jour. of Med.*, September, 1902).—While ninety-five per cent. of tubercular joint disease of the knee are cured with motion and little deformity, when the modern protective plan of treatment is followed there however remain those cases not correctly treated which heal with either subluxation of the tibia or other deformities. For subluxation the genu-clast of Goldthwait gives the best means for forcible correction. Flexion, knock-knee, bow-legs, etc., must be forcibly corrected manually, or, if this is not possible, it is better to do a linear or cuneiform osteotomy, reserving excision for those cases where subluxation is extreme, or right-angle deformity is present. Osteotomy, either linear or cuneiform of either the femur or tibia, has the advantage of not going through tissue previously diseased, where some foci may remain, of not being as extensive an operation as excision, and of not disturbing the epiphyseal cartilage or interfering with the growth of the limb, and in children of not being followed by relapses, as is excision. Several cases are reported.

Excision of the Knee for Chronic Rheumatism.—THEO. A. MCGRAW (*Hot Springs Med. Jour.*, September 15, 1902).—Chronic rheumatism of one knee, which has for two or three years lost its function, and has resisted all forms of treatment, is offered the only hope of relief of pain and a serviceable leg by the excision of the joint. The breaking up of adhesions under an anesthetic, and the subsequent massage and passive motion have, in the author's hands, only aggravated the symptoms. The inconvenience of a stiff leg is the only drawback, but this is not great in a one-sided affection; in a double knee involvement resection of both knees is not recommended, but the wheel-chair existence of the individual had better be continued.

Three cases of satisfactory operative intervention are reported. One of these is a true rheumatic, partial ankylosis of one knee in a girl of twenty-two. The second case was rheumatoid in character, ligaments thick, joint eroded, and much new bone tissue in the joint. The third case was one of a motile, but very painful joint which was only slightly ankylosed. Many other joints in the body were affected. The results of the operation were firm in all cases and the pain entirely relieved.

Metatarsalgia—Utilization of the X-ray for the Determination of the Therapy.—G. BILHAUT (*Annals de Chirurgie et Orthopedie*, October, 1901).—He finds that the spreading of the anterior arch or changes in the joint are not always present. Morton thought that pain was due to the pressure of the fourth metatarsal on the nerve. Recent authors have shown that the end of the bone is the seat of an osteitis. In his experience both of these explanations are correct, but besides he has found in some cases that the head of the third metatarsal falls below its neighbor, and its under surface is the seat of an exostosis. The treatment in

mild cases is rest and immobilization in plaster, in the more severe cases excision of the head of the metatarsal. The X-ray is used to determine the condition of the bones.

Relief of the Paralyzed Quadriceps Femoris by the Flexors of the Lower Leg.—KRAUSE (*Deutsche Med. Wochenschr.*, No. 7 and 8, 1902).—An excellent result has been obtained in a case of poliomyelitis, with paralysis of the quadriceps, by the transplantation into paletta of the flexors of the leg. The biceps, semitendinosus, semimembranosus and gracilis and sartorius are well divided, and then tendons introduced into a canal made between the femur and the atrophied quadriceps. The biceps was put external to the bone, and the rest of the group internally, after which they were attached directly to the paletta. The functional result was excellent, and the patient walks without a limp.

Hallux Varus.—G. LEICHMANN (*Zeitschrift f. Ortho. Chir.*, X Band, 1 Heft, 1902).—This deformity can be acquired as well as congenital. If acquired it is usually associated with flat foot or hammer-toe. It is not common, only a few cases appearing in literature. Three new cases are reported. In the first case the phalanx was bent, its distal end looking inwards. In the second case the phalanx articulates with an inverted end of the metatarsal. In the third case the toe on the right foot only was affected, was very broad, and there was a supernumerary digit fused with it. Osteotomy of the phalanges was practiced in the first case; exarticulate was used in the second case. The third case was not operated.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

A Case of Arsenical Paralysis.—J. KRON (*Neurolog. Centralbl.*, No. 20, 1902).—A case of severe arsenical neuritis in a girl twenty-one years old, who had taken pills containing arsenic for the relief of headache. These pills had been given to her by a physician. The symptoms of arsenical poisoning developed in the patient without the usual prodromal gastro-intestinal trouble. The symptoms relating to the nervous system developed with remarkable rapidity in the following order: Paresthesia, pain, paralysis and atrophy. The muscles of the upper extremities were not affected, but the lower extremities were paretic to such an extent that walking and standing were quite impossible. The muscles of the lower and upper legs were atrophic. Patellar and Achilles tendon reflexes were abolished. An unusual feature of the case, and one to which the author calls especial attention, was the involvement of the sphincteric function of the bladder. For a number of months the patient had absolutely no control over micturition and had to be catheterized. It was formerly supposed that the characteristic difference between a neuritis and a cord affection was that in the former the bladder control was retained while in the latter it was lost. This was formerly considered an important differential diagnostic point between neuritis and myelitis. This case seems to prove the contrary, or rather it invalidates the usefulness of this differentiating sign. The patient finally recovered. The prognosis of arsenical paralysis is generally good. In one hundred and thirty cases Alexander could find only three in whom the paralysis did not finally disappear. There have been not a few cases of arsenical neuritis reported, which were caused by moderate doses of Fowler's solution or other arsenical preparations. In this case, however, the dose was so greatly in excess of the average, that it was not surprising that symptoms of intoxication followed.

Pseudo-Epilepsies and the Relief of Some Forms by Thyroid.—W. BROWNING (*Jour. Nerv. and Ment. Dis.*, October, 1902).—Four cases are here described under the above title, which is used by the author in a somewhat provisional sense to specify a class of cases that cannot conveniently be brought under any other head. The thyroid treatment was used with marked success in some of them. The author's conclusions are as follows: 1. In the young there occurs a class of cases characterized by recurrent attacks of heterogenous type, and that may conveniently be called pseudo-epilepsy. 2. This form of trouble is curable. 3. Such cases, as far as here studied, are due to or associated with disturbances in the general tissue metabolism of the body. 4. Some of these are in whole or in part rachitic origin. 5. Troubles of this kind, when due to rachitis, are amenable to thyroid treatment. 6. True epilepsy is not remedied by thyroid, even in a person who was once rachitic. 7. It is evident that in many cases there is a relation between rachitis and athyreosis than has heretofore been recognized. There must be a relative inadequacy of the thyroid function in these cases, associated with rickets. Either, as one of my cases indicates, there is a serious impairment of the activity of the gland or thyroid feeding serves to burn up harmful material at large in the system.

Remarks on the Pathological Anatomy of Syphilis of the Central Nervous System.—WILLIAM ERB (*Deutsche Zeitschrift fuer Nervenheilkunde*, Band 22, Heft. 1 and 2, 1902).—Erb may be regarded as one of the discoverers of the importance of syphilis in the subsequent development of symptoms of the nervous system. In this very interesting and readable article he discusses certain phases of the question, suggests certain problems that arise, and answers them as far as he can. Syphilitic symptoms referring to the nervous system are found in all stages of infection, but especially in the late period between five and fifteen years after the initial lesion. The first question which Erb brings up is, what can pathological anatomy teach us in regard to the manifold symptomatology of nervous syphilis? The mass of certain and definite data on the subject is relatively small. After a careful and critical study of the most recent work of others together with his own, the author notes the following as the positive facts at our disposal: There is nothing absolutely known concerning the changes in the nervous system during the primary and secondary stages of syphilis, although very often clinical symptoms, on the part of the nervous system, appear in these stages. The theory is that various irritative processes take place, perhaps in the form of serous exudates or diffuse infiltrations, which, as a rule, are again absorbed, leaving only in rare instances a thickening of the tissues. (Connective tissue, perivascular, etc.) In the later stages, during which it is supposed that the syphilitic virus has changed its nature and is no longer infectious, many pathological changes are known. Some of these are regarded as absolutely specific, such as gumma, small-celled new growths, granuloma, small-celled infiltration, gummatous nodules. In addition to them there is a vascular affection, which is of great importance, such as arteritis, phlebitis, endo-meso- and periarthritis. The absolute characteristic of such lesions in regard to their syphilitic origin, in the sense that they are specific lesions, is no longer believed to be true. There is no syphilis bacillus known, and no absolute and characteristic cell and tissue change, and no definite staining reaction. Virchow's dictum is still true that we are not in a position to decide absolutely whether any given new growth is to be regarded as gummatous or not. It is frequently impossible to distinguish between syphilitic and tubercular processes. In the light of all this uncertainty Erb asks how did the relationship between syphilis and the pathological appearances commonly attributed to syphilis come about? It is evident that it is based purely on clinical evidences, both in regard to the history of syphilis and to the effect of antiluetic therapy. Such a method of proof is of doubtful value for these reasons: First, there are many cases of so-called clinical

or anatomically grounded syphilis, where no history of syphilitic infection can be obtained; second, there are a number of processes which show the identical histological changes that syphilis does; third, that it has never been shown either that Hg. and iodine act favorably only on syphilitic lesions, nor that they always act favorably on them. Another way to approach the subject is to assume that there are certain forms of atrophy and degeneration of the central nervous system which arise from a primary affection of the nerve cell, the so-called primary parenchymatous degeneration, accompanied sometimes with glia overgrowth, such as chronic myelitis, sclerosis, column degeneration and nuclear atrophy. Clinically such conditions are very likely specific in origin, anatomically they are coming to be regarded more and more as such. To illustrate this theory, Erb describes groups of cases under the following heads: First, cases with typical gummatous meningitis, myelitis, arteritis, which at the same time show system or focal degeneration of a non-specific character, in which a history of syphilis is certain. Second, cases with typical primary system degeneration, together with changes in the meninges, cord and vessels, of doubtless specific origin. To this class belong cases of tabes, with the classic posterior sclerosis, and at the same time specific changes in the meninges, blood vessels, etc. Third, cases where there is no doubt of a syphilitic infection, in which are found primary sclerosis, system degeneration, nerve and nuclear atrophy. The following general conclusions end the article, the key-note of which is that there exists a primary cell process of syphilitic origin, which shows anatomically no definite syphilitic characteristics, but is rarely found, except in specific individuals: 1. In many cases (almost without exception in individuals with a past history of syphilis) there is found in addition to the typical luetic disease of the central nervous system (gummatous inflammation, infiltration, etc.), a primary degeneration and atrophy, which are not typically specific, but for the existence of which no other etiology can be found. 2. In many cases of such primary, apparently non-typical specific degeneration are found typical specific processes complicating them, such as meningitis, gumma, arteritis, etc. 3. There are numerous primary non-specific sclerosis, system degeneration, etc., which are not accompanied by specific lesions. These occur only in individuals who have been specifically infected, or in such great numbers of them that there can be no doubt that syphilis is the primary origin of the process.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON, M. D.

Indurations and Fibrous Tumors of the Cavernous Bodies of the Penis.—TRILLAT (*Gazette des Hopitaux*, September 20, 1902).—Induration of the cavernous bodies of the penis has been variously described since 1743, Ricord's classification being accepted in his time without protest. If we consider the number of published cases, the affection is rare; but when we take into account that in general the condition causes little discomfort to the patient, and usually passes unnoticed by the doctor, we must think it occurs more frequently. We have two distinct groups—those which come in the wake of a well-established local cause, and those which appear spontaneously. In the first category are those of inflammatory, syphilitic and traumatic origin. Under the second head are those having for a cause arthritism (gout, diabetes, rheumatism); those with a general cause other than arthritism; and those with no known cause, either local or general.

They may be either single or multiple, as many as eight having been observed in a single case. Besides the evident objective symptoms there are functional difficulties, such as troubled or weak erection, pain, bending of the organ, impediment to ejaculation, diminished ability or complete loss of power of coition.

These tumors have, in general, no tendency to spontaneous cure. Malignant degeneration has never been observed, neither has osseous transformation been established. The prognosis as to life is good, but the nodosities are either a long time disappearing or, as in most of the cases, never disappear.

After considering the pathological anatomy, the pathogenesis and diagnosis, the author takes up the treatment, which consists of the usual local expedients; such as emollients, resorbents, electrolysis and excision; and the constitutional treatment, which is of service in the syphilitic condition and the diatheses.

Grafts and Transplantations of the Testicle; Application to the Treatment of Testicular Ectopy.—MANCLAIRE (*Ann. des Mal. des organ. Genito-Urin.*, September, 1902).—Having reviewed the experiences in grafting or transplanting the testicle reported by physiologists, and those of surgeons who have operated for pathological conditions in man, in all of which the graft was made after section of the cord, the author attempted to graft the testicle by approach; that is to say, he transposed it and grafted it upon its fellow without severing its cord. This, formed of tissue of the same nature, would favor the transplantation and the nutrition of the grafted organ. In the case of ectopy, this operation would remedy the displacement of the organ and its partial atrophy. The operation for graft by approach of ectopied testicle complicated with hernia comprises the following steps: Radical cure of the hernia; liberation of the adhesions of the cord; complete removal of the septum between the two scrotal sacs; opening of the vaginal of the healthy testicle; freshening of a lozenge-shaped surface of the albuginea upon both testicles; suture of the freshened surfaces to each other; envelopment of the united testicles by suture of the vaginal, utilizing the serous membrane of the hernial sac, and thus making a single vaginal tunic for the united organs; suture of the deep tissues around the cord to fix it; suture of the skin.

This operation was attempted upon a child of ten years of age, but as the ectopied testicle did not have sufficient pedicle to permit of its being drawn into the scrotum, the healthy testicle was made to approach it at the external ring, with the hope that later both would descend into the scrotum. This had not occurred nine months afterwards, and the operator expected to sever the cord of the ectopied testicle to permit it.

Eight other cases, three upon adults and five upon children, are reported. The immediate results are good, the combined testicles remaining in the single scrotal sac, not being painful or tender and not atrophying.

The vascular alterations that we find in connection with an ectopied testicle are perhaps primitive, and can possibly be one of the causes of arrest of descent. More than half of the cases of ectopied testicle which have either descended spontaneously or been artificially fixed in the scrotum, have remained smaller than normal. This justifies the operation of grafting that the author proposes, which gives many chances for the gland to return to its normal volume and to preserve its normal secretions, especially its internal secretion, so all-important to the mental, intellectual and physical being of the subject. Testicular grafting after severing the cord has given very contradictory results.

The Successful Treatment of Gonorrhea and All Inflammatory Diseases of the Urethra by Packing it with an Antiseptic Oiled Dressing.—RUCKER (*J. A. M. A.*, October 11, 1902).—Finding the injection, irrigation and internal treatment of

gonorrhea unsatisfactory; the author has devised the following technique: After the patient empties his bladder completely, the urethra is irrigated with a hot solution of potassic permanganate, about one to three thousand. The packer which he has had constructed is then introduced into the urethra as far as the inflammation extends, and through it the urethra is lightly packed with one inch continuous gauze strips, or loosely spun cotton cord, saturated with one of the following solutions:

℞ Iodoform	gr. xcv
Balsam of Peru	℥ iv
Castor oil	q. s. ad. ℥ iv

Rub iodoform in castor oil, then add balsam of Peru. Or:

℞ Icththiol,	
Resorein,	aa gr. xl
Balsam of Peru	℥ iv
Castor oil	q. s. ad. ℥ iv
M Ft. sol.	

The patient is now instructed to go as long as he possibly can before urinating, when the cord is slowly removed. It is necessary to pack the urethra ordinarily once, but in some cases twice a day until the discharge ceases, then every other day for ten days or two weeks. Four cases with favorable results are reported.

All cases of gonorrhea, whether acute or chronic, yield promptly to this treatment. The discharge ceases in from two to five days, and in ten days or two weeks more the patient is dismissed as cured. The antiseptic oiled dressing renders the field unfavorable for germ development and promotes healing of the inflamed mucous membrane.

Fatty Degeneration of the Bladder as a Factor in the Pathology of Genito-Urinary Disease in Middle and Advanced Life.—LYDSTON (*J. Cut. and Genito-Urin. Dis.*, October, 1902).—Fatty degeneration of the prostate and bladder is a condition not generally recognized. That it is an important factor in genito-urinary pathology the author is convinced from the observation of several distinct cases, a report of which he gives. This fatty degeneration of the bladder muscle is by no means limited to patients who are free from prostatic obstruction. It may be associated with prostatic disease. It constitutes one of the causes of the failure of radical operations, of whatever kind. It is wise, in the face of such degenerative conditions, not to claim too much for any radical operation upon the prostate in cases of obstructive disease. From the enthusiasm with which some surgeons are booming various operations upon the prostate, one would infer that the morbid anatomy of vesical and prostatic disease had been revolutionized for the express benefit of operators by one or another radical method.

Contribution to the Diagnosis of Renal Calculus.—BIERHOFF (*Medical News*, October 11, 1902).—The method employed is as follows: A good sized ureteral catheter is passed up into the renal pelvis, and through this tepid, sterilized one per cent. boric acid solution is gently injected until the patient complains of a sensation of pressure in the renal region, usually about 30 c.c. being required. The fluid is then allowed to flow off, and the maneuver is repeated until 250 to 300 c.c. in all have been employed. Its intention is to repeatedly distend the renal pelvis with some bland, sterile fluid, and by this means to bring about movement of the calculus. Where a stone was present, in those cases in which it was applied, the procedure was followed within twenty-four hours by a distinct hematuria. Where no stone was present there was no hematuria. The author has employed the method in five instances upon four cases of pyelitis

suspected to be due to calculus, a report of which in detail is given. This preliminary communication is intended simply as an observation.

Clinical Study of a New Silver Salt in the Treatment of Gonorrhea.—CHRISTIAN (*Medical Record*, September 27, 1902).—As a result of the study of forty-eight cases of gonorrhea in which the author used silver vitelline, he is convinced that it is the best silver compound ever offered to the profession for the treatment of gonorrhea, because: (1) It is absolutely free from any irritating properties, solutions as high as five per cent. causing no discomfort. (2) The gonococci on and beneath the urethral mucous membrane are rapidly destroyed. (3) The amount of urethral discharge is in a majority of cases at once lessened in a marked degree. (4) The actual duration of the disease is shorter than is obtained by the use of any other silver salt. In his cases thirty-eight were cured in from two to four weeks.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

Lupus Erythematosus; a Clinical Study of Seventy-One Cases.—JAMES H. SEQUEIRA, M. D., London, and H. BALEAN, M. B., London (*British Journal of Dermatology*, October, 1902).—The inflammatory nature of the lesions in lupus erythematosus and their symmetrical distribution suggest a circulating poison or poisons. The hypothesis that the circulating toxine is of tuberculous origin in all cases does not appear to be adequate. The authors found that the two varieties of the disease exhibited striking differences in their relationship to tuberculosis. The discoid form was associated with tuberculosis in eighteen per cent., and there was a history of tuberculosis in the family in about forty per cent. They are, therefore, inclined to agree with W. Pick's statement that we have no right to say that lupus erythematosus discoides is a tuberculous affection.

On the other hand, they found that the disseminated form was associated with the presence of tuberculous disease in seventy per cent. of their patients, and there was a history of tuberculosis in the family in eighty per cent. The more severe forms of the disease appear to be constantly associated with tuberculosis, although in their fatal case the lesion was obsolete and limited in extent. There is, therefore, strong evidence in favor of lupus erythematosus disseminatus being of tuberculous origin, or that the presence of tuberculosis modifies the course of the disease and intensifies it. The fact that lupus erythematosus is very rarely seen in great consumption hospitals is, perhaps, not sufficiently recognized. If the disease were solely due to the circulation of toxines of tuberculous origin, it ought certainly to be frequently found in institutions where so large a number of patients suffering from tuberculous disease come under observation. The presence of albumin in the urine in a large proportion of the disseminated cases, and particularly in those in which the disease was active, may be explained in two ways. It is known that circulating toxines in the exanthemata and other diseases are excreted by the kidneys, and that they commonly set up nephritis. In the more active forms of lupus erythematosus—in those, in fact, in which it may be assumed that there is a greater toxicity—they found albuminuria, which they believed to be of toxic origin. The other explanation is that the kidneys being previously diseased, prevent the excretion of toxines, in themselves incapable of causing renal changes, and that their retention in the blood is the cause of the more active form of the cutaneous disease.

The writers incline to the former opinion, as they found no reason in some of their cases to suppose that there had been pre-existing albuminuria, and, moreover, the albuminuria was associated with the disseminated form of the disease, especially of the exanthematic type.

The situation of the lesions appeared to be determined by (1) nervous influence. The peculiar limitations of the areas affected afford strong support to the angio-neurotic theory of the disease. There were found no characteristic changes in the nervous system in their fatal case. (2) A feeble circulation also seems to be a factor, as shown by the frequent association of acroasphyxia and allied conditions, including Raynaud's disease, as in a case cited of Dr. Pringle's. (3) Local irritation cannot be overlooked as a determining factor, as shown by the appearance of the lesions after the application of poultices, of a cantharides blister, from the irritation produced by the chemical rays of light, and by the bite of a mosquito.

Malformations of the Teeth and Maxillæ in Hereditary Syphilis.—A. BRUNET (*Gazette des Hôpitaux*, No. 20, 1902).—The many works and observations of Magitot and Prof. Fournier have thrown some definite light upon this subject. Contrary to the theory of Parrot, syphilis is not the only cause of these malformations; in fact, the malformations or erosions of the teeth are the common lesions which may be produced by the simple affections of nutrition, or any condition which may perturb nutrition or development. Madame Sollier, in her inaugural thesis, based on one hundred observations, has observed that idiots and those of arrested development present the stigmata usually ascribed to the influence of hereditary syphilis. There are certain lesions of this character upon which the writer places more stress, as they occur most frequently in known heredo-syphilitics and infrequently in other affections. The erosion of the first large molar, especially the inferior, is of all the teeth the most frequently affected in hereditary syphilis; the reason for this being that it is the only tooth of the second dentition in which ossification commences *in utero*.

In Hutchinson's teeth, the superior median incisors, ossification commences the first month after birth, therefore their erosion is to be considered one of the best symptoms of presumptive hereditary syphilis. The arched palate and other deformities of the maxilla are symptoms merely of degeneracy and not of any value in the diagnosis of heredo-syphilis.

Primary Infectious Purpuras and the Secondary Purpuras.—M. HIRTZ (*Gazette des Hôpitaux*, No. 17, 1902).—Several varieties of the infectious forms of purpura have been described. In the form foudroyante of Henock, a disease of young infants, it begins with an intense fever, and on the first or second day the body is covered with ecchymoses and purpuric spots accompanied by bulla which often became gangrenous. The patient is plunged into coma or more or less delirium and dies in five days.

In the acute typhoidal type the temperature rapidly attains 40°, C., with headache, constipation, nausea and vomiting, the latter being alimentary or bilious. In three or four days the hemorrhages appear and are more or less confluent, accompanied by epistaxis and hematuria. Sometimes purulent conditions of the joints supervene. Apoplectiform attacks occur if the hemorrhages invade the nerve centers. The temperature curve is irregular. There is pronounced albuminuria. The evolution of this form is always rapid. The subacute form is less intense in all its symptoms.

The pathology of infectious purpura is certainly interesting, but unfortunately is not as yet understood; the paludian infection has been invoked; Matthieu, in 1883, and the writer, in 1897, have cited cases of purpura in which there was paludism; but it is impossible to make malaria the direct cause of purpura.*

* The writer forgets that emboli of the protozoa in the vessels of the skin could cause the purpura.—Ed.

For Hayem purpura is the expression of a toxemia analogous to that produced by the injection of the serum of one animal into the vessels of one of another species.

Streptococci, staphylococci, pneumococci, the colon-bacillus and other organisms have, respectively, been found at autopsy. There is a secondary infectious purpura complicating variola, cerebro-spinal meningitis, typhus, acute jaundice and the grave variety, and other infectious diseases.

LARYNGOLOGY AND OTOTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

On Direct Endoscopy of the Upper Air Passages and Esophagus.—G. KILLIAN (*British Medical Journal*, August 30, 1902).—Remarkable progress has been made during the last few years in the diagnosis and treatment of foreign bodies in the upper air passages and esophagus. Entirely new methods of examining these passages have been evolved and many difficulties overcome. Direct methods allow us to penetrate in a straight line into the air passages and esophagus without injuring these organs.

In the case of foreign bodies in the esophagus, the older methods of diagnosis cannot be relied upon. Even the Roentgen-gram fails, owing to the shadow of the vertebral column or heart. Direct esophagoscopy is the only absolutely reliable method. By these means the gullet may be systematically searched from above downwards, and all conditions recognized, and allow us to make an attempt at extraction under strict supervision of the eye. Local anesthesia with cocaine is all that is usually necessary. The author removed a hard rubber dental plate from the esophagus (which was fixed at a depth of 35 cm.) with the galvanocautery snare, first cutting it in two and then removing the pieces.

The same principle has been applied to the trachea and bronchi. In the case of children, direct laryngoscopy (Kierstein's autoscopy) can always be successfully employed, especially after administering an anesthetic. The writer, however, prefers to employ direct upper tracheoscopy, using a straight tube of sufficient length and width, small enough to get through the rima glottidis, being thus entirely independent of any disturbing reflex action of the pharynx or larynx. In adults a twenty-five per cent. alcoholic sol. of cocaine, with a hypodermic injection of morphine to quiet the patient, will suffice, but in children chloroform will be necessary. The head hangs backward over the edge of a table and the instruments are introduced under the guidance of the eye, looking cautiously through the tube. Foreign bodies are thus easily discovered and extracted. If just beyond the bifurcation of the trachea, upper direct tracheoscopy is all that is necessary for diagnosis and extraction. If deeper down the author employs tubes of greater length, which he introduces into the cocaineized bronchi. The bronchus may be pressed into the median line and brought in a straight line with the trachea. The whole bronchial tree can be searched. Long, slender forceps and hooks are used to remove the foreign bodies.

Bronchoscopy has been employed in twenty cases; of these eleven were the author's cases. Nearly one-half of all the cases were children, their ages ranging from two to twelve years. Extraction was attempted in fifteen cases with success in thirteen. The other two were failures. The one owing to the lack of suitable instruments, and in the other the foreign body lay in an abscess cavity with a narrow opening; both cases died.

The histories of five cases are given in detail, in which the author successfully removed foreign bodies from the bronchi, and also cites a case in which von Schroetter removed a piece of lead from the right bronchus of the second order in a boy aged twelve, and a fish bone removed from the left bronchus of a boy aged three and one-half years by J. A. Killian.

Why do Nasal Polypi Recur?—HAZECK (*Wiener Med. Presse*, No. 10, 1902) answers the question as follows:

1. Because, as a rule, not all the polypi are removed or they are not removed with their pedicles.

2. Because an empyema of one or more of the accessory cavities are overlooked, which furnishes the inflammatory cause for the development of the polypi.

3. Because the bone and the periosteum from which the polypi take their origin are diseased, and they are not as a rule thoroughly removed, hence the polypi recur.

Intratracheal Medication.—FORSYTH (*Buffalo Medical Journal*, October, 1902) dates this form of medication to the year 1838, when Horace Green, of New York, passed a small sponge saturated with a solution of nitrate of silver through the glottis into the trachea. From October, 1854, to February, 1856, Green treated one hundred and six cases, of which seventy-one were cases of tuberculosis. Of the tubercular cases thirty-two were considered advanced and thirty-nine early. Of the advanced twenty-five were improved, seven were not improved. Of the thirty-nine early cases twelve had apparently recovered, five nearly well, seventeen greatly improved, three moderately benefited and three not improved at all when the report was made. Green later professed a growing faith in the procedure, not only in tuberculosis, but also in bronchial affections and asthma. The advantages of this form of medication over the usual methods lies in the fact that the antiseptics penetrate the farthest limit of the respiratory spaced unaltered and bring about the beneficial results without interfering with the digestive organs. Experiments prove that the medicaments are distributed to even the bronchial twigs and are absorbed.

With this treatment the expectoration becomes greatly reduced in quantity and much less offensive. The purulent element disappears and expectoration resembles the frothy expectoration of simple bronchitis; fever and night sweats disappear and the patient gains in weight.

The diseases most suitable to this form of treatment are pulmonary and laryngeal tuberculosis, pulmonary and laryngeal syphilis, chronic bronchitis, inflammation of trachea, asthma and bronchiectasis. The solutions used by the author are menthol $7\frac{1}{2}$ to 15 per cent., guaiacol $\frac{1}{2}$ to 3 per cent. in benzoniol or alboline; eucophen 1 to 2 per cent. may be used instead of the guaiacol. In nervous patients he sprays or applies to the larynx a 2 per cent. cocaine solution. He uses the instrument suggested by Joseph Muir, which has a capacity of one-half ounce. One to four drams may be used. Injections are made about the same as laryngeal applications are made. As soon as the tube enters the larynx the patient is instructed to breathe, and the syringe is emptied to the desired amount.

In Forsyth's experience spasms of the glottis have never occurred and patients are not opposed to taking the injections.

The Present Status of the Ozena Question.—Z. GRUENWALD (*Archiv fuer Laryngologie und Rhinologie*, Band 13, Heft 2).—The author holds that the etiology of ozena is in some cases not understood, in spite of all the many theories that have been advanced. What we do know is that in the majority of the cases the

secretion originates from some focal suppuration, as disease of the accessory nasal cavities, adenoid tissue in the vault of the pharynx and in the nasal cavities themselves.

That the secretion is always fluid, most often odorless, but dries as the result of mechanical influences and becomes gelatinous and adherent owing to the action of the bacillus mucosus of Abel. That the atrophy, when not present primarily, is due to the pressure and the infectious influence of the accumulated crusts. That the odor is due to the saprophytic disintegration of the adherent crusts. That the treatment, unless the focal suppuration can be removed, is unsatisfactory.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

Contagious Conjunctivitis.—MYLES STANDISH (*Boston Med. and Surg. Jour.*, October 2, 1902).—This paper is a review of the several types of acute contagious conjunctivitis with an outline of modern therapeutic methods.

Acute Catarrhal Conjunctivitis is regarded as a self-limited disease, lasting from ten to fifteen days. The symptomatology is too well known to require description. The specific organism is, in the majority of cases, the Koch-Weeks bacillus, less frequently the pneumococcus is of Fraenkel, and rarely the diplobacillus of Morax. According to the writer's experience the application of finely powdered and dry iodoform, two or three times at intervals of twelve hours, notably shortens the attack.

Trachoma is regarded as contagious, provided contact be sufficiently close and continued (of the many instances of trachoma spreading through orphan asylums). Those who affirm the non-contagiousness of trachoma probably confuse the latter with follicular conjunctivitis. The following are points in differential diagnosis:

Follicular Conjunctivitis.

Follicles low and rounded.

Situated principally in lower fornix and lower lid.

Do not extend to bulbar conjunctiva.

No ptosis, pannus, cicatricial formation or ulceration of cornea.

Trachoma.

Follicles full, rounded. "frog-spawn like."

Situated principally in upper fornix.

Extend to palpebral and often to bulbar conjunctiva.

Ptosis frequent, pannus, corneal ulceration; cicatricial incurvation of lid.

The early classical treatment of trachoma consisted in the application to the follicles of crayons of alum or cupric sulphate. Under this regimen the follicular stage lasted from three to five months. Later, when the tissue had become cicatrized, the treatment was continued with silver nitrate in one per cent. to two per cent. solution. Atropia was used if the cornea was involved. Cases so treated could hardly ever be considered completely cured, as relapses to the follicular stage were frequent.

The modern treatment of trachoma is both surgical and antiseptic. After the evacuation of the trachomatous follicles by expression the evacuated crypts are thoroughly scrubbed with corrosive sublimate 1:500. The follicular stage which formerly lasted three to five months, has disappeared within twenty-four hours. Collyria, preferably of the sublimate, 1:5000, are subsequently used.

If new follicles appear they must be immediately evacuated. Under this treatment corneal complications are rare. Cure is complete in one to two years, usually without visible scarring of the conjunctiva or cornea. Where the case has reached the cicatricial stage and is complicated by pannus and corneal ulceration, the application of a decoction of the Jequirity bean has been found very effective in bringing the process in the lids to a stand-still and in clearing the pannus.

Statistics compiled from the records of the Massachusetts Charitable Eye and Ear Infirmary show that from 1880 to 1884, inclusive, 3.5 per cent of all ophthalmic cases were cases of trachoma; from 1897 to 1901, inclusive, the percentage had fallen to 1.2 per cent. Again, from 1880 to 1884, 12.6 per cent. of all "house" patients were afflicted with trachoma, each case remaining in the hospital an average of 64.5 days. From 1897 to 1901 the trachoma percentage was three per cent., and the average length of hospital residence had fallen to twenty-nine days.

The exclusion of immigrants afflicted with trachoma has been a positive factor in the diminution of the disease, but modern antiseptic treatment, which permits the patient (after a relatively short hospital residence) to go among his associates with but little danger of conveying the contagion, is unquestionably the principal factor.

Gonorrheal Ophthalmia.—Ophthalmia neonatorum, which constitutes the most numerous class of this disease, is now treated exclusively in the hospital. The infants are admitted without their mothers, and are fed on modified milk.

The majority of cases have been treated with silver nitrate in one per cent. to two per cent. solution, usually painted onto the everted lids and washed off with water. If the fellow eye is unaffected the lids are dusted with iodoform (to prevent infection in case the dressing become loosened). The dressing is in the shape of a cocoon and is fastened to the cheek and brow by collodion.

Recently, protargol in from four per cent. to twenty per cent. solution has been used. It has been found more efficient than silver nitrate in preventing the formation of ulcers. In the last fifty cases, where a twenty per cent. solution was used exclusively, no case with a clear cornea on admission developed ulceration.

The Saemisch incision is advocated in cases of rapidly extending sloughing ulcers. The operation was performed in twelve cases and nine retained a clear cornea over the pupil. The immunity from intraocular inflammation subsequent to the operation is explained by the absence of micro-organisms other than the gonococcus.

Diphtheritic Conjunctivitis.—Prior to the days of bacteriology much confusion existed as to this type of conjunctivitis, and cases were variously diagnosed as purulent, gonorrheal and diphtheritic. The clinical picture is now well defined and includes conjunctival congestion, lachrymation, and a slight mucous discharge lasting three or four days. Diagnosis is impossible before the appearance of the characteristic tough, dirty-white, closely adherent membrane, which leaves a bleeding surface on separation. There is great conjunctival chemosis and edema of the lids. The diagnosis is absolutely confirmed by the finding of the Klebs-Loeffler bacillus.

Antitoxin should be administered at once without waiting for bacteriologic confirmation. The initial dose should be 4000 units, repeated at the end of six to eight hours. Virulent cases require three or four injections. Usually within forty-eight hours the danger-point has been passed. Of twenty-five cases of diphtheritic conjunctivitis observed in the South Department of the Boston City Hospital, one-third developed corneal complications. In only four cases was the cornea lost, all of which were cases of diphtheria complicating measles. The antitoxin appeared to exert a specific influence on cases of deep corneal infiltration with loss of substance.

Sudden Temporary Loss of Vision. Probably of Circulatory Origin.—J. W. BARRITT (*Ophthalm. Review*, October, 1902).—The patient, a male aged sixty, had been working hard, physically, for two weeks. On awakening from a two-hours' nap he found he was totally blind in the left eye. Two hours later he was able to distinguish the flame of a candle which "stood out" on a perfectly black ground. The blackness gradually grew less dense, "and then came a sensation as if a curtain were gradually dropping from before the eye." An hour later vision was perfectly restored.

Ocular examination the following day showed normal vision in either eye, and normal fields. Ophthalmoscopically, the superior nasal vein was found constricted near the disk. Pressure on the globe produced pulsation in the vessels of the fundus *except* in the constricted vein. There was no evidence of cardiac, arterial or renal disease, but the radial artery was atheromatous.

From reported cases it would appear that a retina deprived of its blood supply for more than an hour suffered irreparable injury, evinced by limitation or eccentricity of the field. In the present case blindness was total for at least two hours, but it must not be assumed that the retina was totally deprived of blood during this period. The pathology is "probably embolism *plus* spasm."

Severe Burn of the Eye and Face by Nitrite of Amyl. With Loss of the Eye.—E. A. SHUMWAY (*Phila. Med. Jour.*, October 11, 1902).—According to Wood "amyl nitrite has no irritating properties." As much as three drachms have been taken internally without fatal issue. Shumway, in a careful search of the literature, has been unable to find the report of a case in which it has caused a local destruction of tissue. The case reported is, therefore, unique. The patient, who was afflicted with Jacksonian epilepsy, had been given a small bottle of nitrite of amyl to use at the appearance of the aura. On one occasion he accidentally splashed a portion of the contents of the bottle into his right eye. The cornea, conjunctiva and the skin of the face were severely burned and the cornea subsequently sloughed. Later enucleation was performed to permit the wearing of an artificial eye.

An investigation into the chemistry of the drug revealed the fact that on exposure to light and air it undergoes decomposition, resulting in the formation of nitrous and nitric acids to which the severe burn was due. The writer makes the following suggestions:

(1) Nitrite of amyl should be supplied to patients for inhalation only in the form of the glass pearls.

(2) When in quantity it should be kept in small, well-sealed, glass-stoppered bottles, in a cool, dark place.

(3) A specimen which has been used a number of times should be tested very carefully, and, if on examination, it is found to have a decidedly acid reaction, it should be at once discarded.

BOOK REVIEWS.

ATLAS AND EPITOME OF ABDOMINAL HERNIAS. By DR. GEORGE SULTAN, First Assistant in the Surgical Clinic in Goettingen, Prussia. Authorized Translation from the German. Edited by WILLIAM B. COLEY, M. D., Clinical Lecturer on Surgery, Columbia University (College of Physicians and Surgeons); Surgeon to the General Memorial Hospital; Assistant Surgeon to the Hospital for Ruptured and Crippled, New York City. With 119 illustrations, 36 of them colored. Philadelphia and London: W. B. Saunders & Company. 1902.

Before us we have the English translation of a late German work that has attracted considerable attention and been most favorably commented upon by the German press. It forms one of the series of Saunders' hand-atlases, and must be considered in every way the peer of a number of those well-known books. The German author's excuse for a special work on hernia, is the fact that the malady is so common as to demand especial knowledge of the subject; then, further, the matter of strangulation exposes the patient to such extreme danger that only one perfectly acquainted with this field can expect to reap good results with any degree of certainty.

The author limits himself, we are surprised to note, to complimenting but two forms of radical operation as having stood the test of time: these are the Bassini and the Kocher: he says, moreover, that it is no matter what kind of suture material be used, since this is not a determining factor, but merely a matter of individual preference. Regarding the first named method, it must be said that the illustrations as well as the description of its steps are far more detailed and lucid than those usually found in the text-books. Kocher's method is illustrated by diminished copies of the cuts which appear in that famous surgeon's work on surgical technique. The antiquated Macewen method is accorded several pages. No fault can be found, however, with the handling of the matter of femoral hernia. The cuts can only be designated as beautiful, while the treatment is of the most approved. The chapters on umbilical hernia attest the author's familiarity with the facts of embryology.

QUAIN'S DICTIONARY OF MEDICINE. Third Edition. 1902. With 14 colored plates and numerous other illustrations. Edited by H. MONTAGUE MURRAY, M. D., F. R. C. P. 1892 pages. D. Appleton & Company, New York, publishers.

This standard dictionary of medicine in the present edition has been largely rewritten and thorough revised. The addition of fourteen well-executed colored plates is but one of the many new features which add to its value as a reference work. The list of contributors includes several hundred leading members of the profession, all of whom have given most careful attention to their respective articles.

The general plan of the book as first arranged by the late Sir Richard Quain has been maintained, though much of the text is entirely new, particularly as regards pathology.

MINOR SURGERY AND BANDAGING, INCLUDING THE TREATMENT OF FRACTURES AND DISLOCATIONS, THE LIGATION OF ARTERIES, AMPUTATIONS, EXCISIONS AND RESECTIONS, INTESTINAL ANASTOMOSIS, OPERATIONS UPON NERVES AND TENDONS, TRACHEOTOMY, INTUBATION OF THE LARYNX, ETC. By HENRY R.

WHARTON, M. D., Professor of Clinical Surgery in the Woman's Medical College of Pennsylvania; Surgeon to the Presbyterian Hospital, and the Children's Hospital; Consulting Surgeon to St. Christopher's Hospital, and the Bryn Mawr Hospital; Fellow of the American Surgical Association. Fifth edition, enlarged and thoroughly revised, with 500 illustrations. Lea Bros. & Co., Philadelphia and New York. 1902.

The mere fact that a fifth edition of this small work is wanted is sufficient warrant for the fact that the students and doctors think they are getting their money's worth out of it. The title is certainly misleading, for it is decidedly more than "Minor Surgery and Bandaging." It is, on the other hand, a condensed work on general surgery, gotten up in a small size. The chapters on bandaging certainly contain all that is required of writers of text-books on that subject, and it must be said that the cuts which illustrate the same are far above the average. However, there is nothing essentially "minor" about an intestinal resection, a statement which can be substantiated by any one who has ever tried it, but the chapters on that subject, too, are fairly good.

Among the emergencies, one of the best handled is "nose-bleed," the cuts serving aptly to illustrate what it is endeavored to teach.

But this is not all, for into the 621 pages offered the reader there is crowded a manual of operations upon the cadaver, something to be by no means despised, though hardly to be expected in a work ostensibly concerning itself with minor surgery and bandaging.

BEITRAEGE ZUR BAUCHCHIRURGIE. NEUE FOLGE. Von Prof. Dr. HANS KEHR, Oberarzt Dr. BERGER und Dr. WELP. Berlin W. 35. 1902. Fischer's Medicin. Buchhandlung H. Kornfeld. Price, \$1.00. (G. E. Stechert, New York, Agent.)

The introduction alone contains much that is of interest. The small work is dedicated to the dead Langenbeck, whom Kehr reveres as the originator of excision of the gall-bladder, an operation which is more frequently performed than other upon the biliary system. This dead Berlin surgeon was also the first to suggest the possibility of removing a stone from the common duct. This report, the second of the author's series, is to be continued every year in order that the world may know exactly what this master of abdominal surgery is doing in his especial field. The value of what lies before us, as well as that of what is to follow, may be gathered from the fact that Kehr did ninety-five gall-stone operations during 1901, these latter forming the subject of the report under discussion. Diagnosis is the author's leading theme; and he states the more endeavor is to be made, since no one can be perfect in this particular; for he, though he has done almost seven hundred gall-stone operations, still makes mistakes. No matter how well a surgeon may command the technique, says Kehr, the best of his work must be lost unless pathology and diagnosis receive their just consideration.

Kehr must have become wonderfully expert in this field, for he states that he can remove the gall-bladder in ten minutes or drain it in twenty or thirty minutes. The book contains the histories of the more interesting of these ninety-five cases and concludes with general information, of the eminently practical sort, on diagnosis and surgical technique.

CHIRURGIE DE L'INTESTIN, par M. JEANNEL, Professeur de Clinique Chirurgicale a la Faculte de Medecine de l'Universite de Toulouse. Deuxieme Edition. Revue et considerablement augmentee, avec 694 Figures dans le Texte. Ouvrage couronne par l'Academie de Medecine (Prix Laborie, 1899). Paris,

Institut international de bibliographie scientifique, 93 Boulevard Saint-Germain. VI. 1901.

This comprehensive work of 657 pages, devoted as it is alone to the surgical treatment of the intestine, could hardly be other than comprehensive; and such it certainly is, for it unites within itself all the original ideas pertaining to this field, no matter in what language they appeared. In this very particular Jeannel may be said to have gone a step farther than most of the other French medical writers, with whom the domestic scientific literature is notoriously all-sufficient.

An idea of the profusion of illustrations may be gained from the fact that almost 700 cuts are considered necessary by the author. Not only is the operative procedure thus better explained in most instances, but at the same time the reader is furnished with a picture of almost every instrument which could possibly be used in an intestinal operation. The idea is clearly, in most cases, to explain the steps of an operation so fully as to make it possible for one who has never seen the same to perform it; and it must be admitted that the author succeeds pretty well. The cuts would scarcely take high rank, viewed strictly as works of art; still many of them are intended to be schematic only, so fulfill their purpose.

One can gain an idea of the vast amount of work which has been put on the book, as well as of the amount of information contained by it, by a study of the fourteen pages devoted to the various means of uniting the intestines. These pages are printed in the form of tables and give a complete list of all the means and methods employed from 1753 (Palfyn) down to 1897 (de Boari). The list contains the name of every man who has published an original method, those of many Americans among them, St. Louis having one representative, A. V. L. Brokaw.

It is really surprising to find how many devices have been employed in the performance of an intestinal anastomosis. The author presents cuts of a vast number of buttons, clamps, forceps, bobbins, etc., which have been advanced as aids to the operation mentioned. It is safe to say that nearly every surgeon has thought out some scheme for rendering short and simple this procedure, and it is further safe to say that most of these ideas will be found to have been long since tried and found wanting, if a large work like that of Jeannel be carefully perused. Just in this connection the work at hand shows us that a surprisingly large number of surgeons have, through ignorance of a predecessor's efforts, published as new, devices which were older than themselves. By way of illustration, Ramage brought out in 1893 the exact appliance which d'Henroz had originated in 1826; a good reason for the surgeon possessing such a book as the one now being reviewed.

Our author deals, of course, very fully with the various methods of suturing the intestines, and I believe that many an experienced operator would be surprised to see how many ways have been devised for uniting with needle and thread this hollow viscus when divided. It may be said further that many of these methods have never found their way into the text-books. This again points the value of a "monograph" for the working surgeon, and such a volume is this one of Jeannel's. It is large enough to give every detail, something that cannot be expected from a student's text-book, no matter how well written.

OPHTHALMIC MYOLOGY. By G. C. SAVAGE, M. D., Professor of Ophthalmology in the Medical Department of Vanderbilt University, etc. Sixty-one illustrative cuts and six plates. Published by the author, 139 North Spruce street, Nashville, Tennessee.

This extended treatise of 589 pages is devoted mainly to an exposition of the author's views as to the role played by the ocular muscles in the production of

heterophoria. Many of the theories advanced are interesting, but the work as a whole is lacking in the judicial spirit. The author's enthusiasm from his own point of view often leads him into an unwarranted dogmatism. The nomenclature is elaborate and unnecessarily cumbrous.

VISUAL ECONOMICS. By H. MAGNUS, Med. Dr., of Breslau, Germany, and H. V. WUERDEMANN, M. D., of Milwaukee, Wisconsin. Pp. 144. Published by C. Porth, 105 Grand avenue, Milwaukee, Wisconsin. 1902.

Magnus' original work, "Leitfaden fuer Begutachtung und Berechnung von Unfallsbeschadigungen der Augen," was first published in 1894, in consequence of the passing of a Benefit and Accident Insurance Law in Germany. Prior to the appearance of this work, estimation of damages from ocular injuries and indemnity therefor had been made from the purely philanthropic standpoint. Magnus' calculations are founded on anatomical and mathematical data, and have been found entirely satisfactory in practical application. It has been found possible to foretell the probable loss of wages resulting from any given ocular accident, thereby establishing sufficient data to permit an exact estimation of the amount of indemnity.

Doctor Wuerdemann has added a number of chapters and has adapted the work to conform to the requirements of American law. The subject is a fascinating one, both from the medical and legal standpoints, and its presentation by the authors leaves little to be desired.

A MANUAL OF SURGICAL TREATMENT. By W. WATSON CHEYNE, M. B., F. R. C. S., F. R. S.; Professor of Surgery in King's College, London; Surgeon to King's College Hospital and the Children's Hospital, Paddington Green, etc., and F. F. BURGHARD, M. D., and M. S. (London), F. R. C. S., Teacher of Practical Surgery in King's College, London; Surgeon to King's College Hospital, and the Children's Hospital, Paddington Green, etc. In seven volumes. Volume VI. The Treatment of the Surgical Affections of the Tongue and Floor of the Mouth, the Pharynx, Neck, Esophagus, Stomach and Intestines. Lea Brothers & Company, Philadelphia and New York. 1902.

This number, a worthy member of the series to which it belongs, contains 479 pages and 124 cuts. The general tone and tenor of the series has shown a marked improvement from the time the first volume was issued; one cannot repress a certain curiosity to know whether or not this betterment may not be due, in a measure at least, to the deservedly severe criticism which the first number received at the hands of the *Annals of Surgery* as well as other leading surgical publications. The early chapters on asepsis particularly, were so decidedly out of keeping with what the world now recognizes as standard, that they met with a well-merited rebuke; however, no such fate awaits the volume which lies before us.

On account of the absence of Mr. Cheyne in South Africa during the late war, this number was delayed in its appearance; also the amount of matter to be considered made it expedient to issue the entire work in seven volumes instead of in six, as originally contemplated.

Very interesting are the author's views as to the giving of morphine to a patient suffering from intestinal obstruction. He says that it is never to be given except as preliminary to operation for which the preparations are under way, under which circumstances if the disease be still in an early stage, the patient's condition may be markedly improved; on the other hand, the obstruction having lasted a long time, the drug may greatly increase the intestinal paralysis.

In acute suppurative appendicitis the author's plan is the conservative one, viz., the opening of the abscess merely, if by removing the diseased organ at the time there be the slightest danger of spreading the infection. In relapsing cases the McBurney incision is advocated; in other words, the appendicitis chapters may be called strictly up to date. In acute gangrenous and perforative cases the authors pack with iodoform gauze, a thing which surprises one who has seen the most serious consequences follow such a usage. Silk worm gut sutures are to be introduced and subsequently tied after the discharge has partly ceased, still, Mikulicz has concluded after long experience that this has no effect on the production of hernia.

A seven-volume work is of more value to practitioner than to student, because it can go into details, and can tell the man who must know, not merely when to do an operation, but furnish him with every detail of how to do it. This is accomplished by the work which we are considering.

VORTRAEGE FUER AERZTE UEBER PHYSIKALISCHE CHEMIE. Von DR. ERNST COHEN. Mit 49 Figuren im Text. (Lectures on Physical Chemistry, for the Use of Physicians, with 49 illustrations.) Leipzig: Verlag von Wilhelm Engelmann. 1901. (G. E. Stechert, New York, Agent.)

The researches that are now being followed out by the medical profession in biology and physiological chemistry require some knowledge of the general laws of physical chemistry, and also some understanding of the technical procedures that are necessary for a correct comprehension of this branch of science. The purpose of the work by Cohen is to condense into as brief a space as possible the general laws of physical chemistry for the guidance of medical investigators who may not have had time to read the full and exhaustive text-books on this subject. This work prepares one for an intelligent reading of the fuller text-books. It deals with the laws governing osmosis, the estimation of specific gravity, rules and illustrations of electrolytic dissociation, electro-motor reactions, and theoretical considerations of electrical phenomena.

The work is concise and written with the needs of the profession in view. It will be found a valuable hand-book for every physician who wants to keep abreast of the times.

COMPEND OF GENERAL PATHOLOGY. By ALFRED EDWARD THAYER, M. D., Assistant Instructor in Gross Pathology, Cornell Medical College. Containing 58 illustrations, several of which are printed in colors. Philadelphia: P. Blakiston's Son & Co. 1902.

The student who desires a quiz-compend on pathology will find this little book quite useful. While the reviewer doubts the efficacy or advisability of attempting to compass in a few hundred pages all the known facts of general and special pathology, he nevertheless admits that the quiz-compend serves to help the student, always providing that a full and complete text-book on the subject is studied. The work includes everything in as full and complete a style as can be accomplished in this way. It certainly is written in a scientific and scholarly manner and tells all that can be told in the short space given to such a voluminous subject.

THE ROLLER BANDAGE. By WM. BARTON HOPKINS, Surgeon to Pennsylvania Hospital and to the Orthopedic Hospital. J. B. Lippincott Company, Philadelphia.

This book in its new form makes a handy and attractive work. The descriptions which accompany the photographic illustrations are excellently done,

and there are many valuable suggestions given in the work which aid the practitioner as well as the student. The recent publication of many indifferent hand atlases leaves little room for any more of their kind, but the appearance of a good, short treatise conveniently arranged is always welcomed.

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M. D., assisted by H. R. M. LANDIS, M. D. Volume III. September, 1902. Lea Brothers & Co., Philadelphia and New York. Price per volume, \$2.50; per annum, in four cloth-bound volumes, \$10.00.

The popularity of this publication relieves us from the necessity of saying anything in its praise. Let it suffice to give the contents of the last volume just published: Diseases of the Thorax and Its Viscera, Including the Heart, Lungs and Blood Vessels, reviewed by William Ewart, M. D.; Dermatology and Syphilis, by William S. Gottheil, M. D.; Diseases of the Nervous System, by William G. Spiller, M. D.; Obstetrics, by Richard C. Norris, M. D.

There is no question that *Progressive Medicine* stands unrivaled in its class.

DUDLEY'S GYNECOLOGY. A Treatise on the Principles and Practice of Gynecology. By E. C. DUDLEY, A. M., M. D., Professor of Gynecology in the Northwestern University Medical School, Chicago. New (3d) edition. Enlarged and thoroughly revised. In one very handsome octavo volume of 756 pages, with 474 engravings, of which 60 are in colors and 22 colored plates. Cloth, \$5.00, net. Leather, \$6.00, net. Half morocco, \$6.50, net. Lea Brothers & Co., Philadelphia and New York.

The new edition presents not only a thorough revision in both text and illustrations, but by judicious pruning of old matter it has been found possible to add nearly one hundred pages, twenty-five new engravings and fourteen plates without considerably increasing the size of the volume.

In the present form we consider the book a model text-book on the subject of gynecology, and feel justified in recommending it to our readers as a thoroughly practical work.

DIE THIERISCHEN PARASITEN DES MENSCHEN (Animal Parasites of Man). A Hand-Book for Students and Physicians. By DR. MAX BRAUN, Professor of Zoology and Comparative Anatomy, and Director of the Zoological Museum, in the University of Königsberg. With 272 illustrations. Third enlarged and revised edition. Würzburg: A. Stuber. (C. Kabitsch.) 1902. (G. E. Stechert, New York, Agent.)

This excellent work now appears in its third enlarged and revised edition. It deals with the animal parasites that affect man. A very good description of the characteristics of the ameba coli, the causative agent of one form of tropical dysentery, is given. The description comprises all of the published articles, including the classical work of Councilman and Laffeur. The chapter on the malarial plasmodium is good, especially the part relating to the life-habits and anatomy of the varieties of mosquitoes which carry the plasmodium.

Full bibliographical references are given for the benefit of those who wish to follow up the original articles on the several subjects. As a compilation of all the known facts on animal parasitology, no one can afford to be without this work. The subject is completely considered and logically treated.

ATLAS OF FRACTURES AND DISLOCATIONS. By H. HELFERICH, Greifswald, Prussia.
 Edited by T. C. Bloodgood, Baltimore. Fifth edition. Saunders & Co.,
 Philadelphia and London.

This work, while not large, is a very comprehensive and instructive book. The text, which so frequently in such works is meager, is in this instance full and carefully describes the numerous types of fractures whether they are pictured or not. The plates are of a high order, and show conditions such as were observed in living subjects or produced on the cadaver, and most of the typical fractures are pictured in X-ray shadows. The treatment of the various conditions is not shown by illustration in any great extent, but the text contains rather short but clear description. The revision of the book was fortunate in that the best of German thought is not changed, but is commented upon, and additions or corrections made where explanations or methods differ. The fracture phase is much more fully and better described than dislocations, but the general impression from the book is excellent.

THE TREATMENT OF FRACTURES. By CHAS. L. SCUDDER, M. D., Assistant in Clinical and Operative Surgery, Harvard Medical School. Third edition, revised and enlarged. Octavo, 480 pages, with 645 original illustrations. W. B. Saunders & Co., Philadelphia and London. 1902.

The scope of this work is limited in most part to the treatment of fractures, and this treatment is one that the author uses and has found most serviceable. The text is prepared with great care and minutely details each method used, and as simplicity is the desideratum, most of the cumbersome devices usually described by fracture treatises are omitted. The book has been exceptionally popular since its first appearance, and in this new edition many new points are added and the old text carefully revised. The illustrations are of a high grade, and the numerous X-ray tracings show excellently the points that the author tries to bring out. However we may differ from the author's views in the selection of the method, the book remains a collection of clear and concise descriptions of good methods, and if his text is carefully followed will lead to good results.

BEITRAEGE ZUR KENNTNISS DER MYASTHENIA UND DER VERWANDTEN SYMPTOMEN COMPLEXE. By T. FAJERSZTAJN. Franz Pietzcker, Tuebingen, 1902. G. E. Stechert, New York Agent.

This is a monograph of some sixty pages, containing a very good bibliography and several plates on the microscopical examination of a case of myasthenia gravis. The material, upon which this study is based consists of four cases, one of which came to autopsy. In addition, two further cases of bulbar spinal paralysis are added as having some sort of relation with the cases forming the subject of this paper. The cases are carefully described and the chief points of diagnostic importance are brought out with clearness. In a concise resume the various theories in regard to etiology and pathology of myasthenia are noted. In this little pamphlet is contained all that we know of myasthenia gravis, stated in such a clear and interesting way that it forms a very readable monograph.

HYGIENE DE LA FEMME; ENFANT—JEUNE FILLE—FEMME MERE ET AIEULE, par le DR. PLATON ET LE DR. SEPET. Paris: C. Naud, editeur. 1902. Prix 4 francs.

In this book the authors have compiled everything that pertains to the hygiene of womankind. Avoiding all controversial and theoretical points, they have limited themselves to the suggestions sufficiently proved in practice to be

perused by both the physician and nurses with the greatest benefit. In the editorial pages of this issue we speak more in detail of the contents and the merits of this volume. We will here restrict ourselves to stating that we most warmly recommend it to the general practitioner, who, by proper prophylaxis, can do so much in preventing diseases, to nurses and midwives who will be enabled to rightly conduct the hygiene of infancy and the puerperium, to the teacher in schools and convents, and—last, but not least—to the mothers.

It may be added that the style is exceedingly pleasing. The make-up of the book is neat, and the price very moderate.

GRAYSON'S LARYNGOLOGY. A TREATISE ON THE DISEASES OF THE THROAT, NOSE AND THE ASSOCIATED AFFECTIONS OF THE EAR. By CHARLES P. GRAYSON, M. D., Lecturer on and Instructor in Laryngology in the Medical Department, University of Pennsylvania. In one octavo volume of 540 pages, with 129 engravings and 8 colored plates. Cloth, \$3.50, net. Lea Brothers & Co., Philadelphia and New York. 1902.

The principal aim of the author in bringing forth this volume has been to simplify the treatment of these specialized regions, in order to avoid confusion. He has endeavored to give but one plan of treatment under each disease and present the methods of examination and therapeutic technique in as practical a way as possible. In this we think he has succeeded admirably. The work is rich in practical illustrations, and is in every way specially suited for the practitioner and student.

DISINFECTION AND DISINFECTANTS. A PRACTICAL GUIDE FOR SANITARIANS, HEALTH AND QUARANTINE OFFICERS. By M. J. ROSENAU, M. D., Director of the Hygienic Laboratory, and Passed Assistant Surgeon, U. S. Public Health and Marine Hospital Service, Washington, D. C. P. Blakiston's Son & Co., Philadelphia. 1902. Price, \$2.00, net.

This work is a practical dissertation of disinfectants and methods of disinfection. The author has had a wide experience in the laboratory of bacteriology and hygiene, and also in the field as a public health officer. He therefore has had the proper experience to fit him for the task of writing a work on a practical subject of this kind. He discusses the present methods of disinfection in general and devotes considerable space to a consideration of each communicable disease in turn, giving the methods of stamping it out of an infected place. We bespeak for Rosenau's efforts marked success. The physician will profit by a perusal of the work. It gives in collected form, arranged in the order of importance, data which would indeed be difficult to find were one compelled to wade through medical literature for it.

ATLAS AND EPITOME OF OPERATIVE SURGERY. By DR. OTTO ZUCKERKANDL, Privat-docent in the University of Vienna. From the second revised and enlarged German edition. Edited, with additions, by J. Chalmers Da Costa, M. D., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia, etc. Second edition, thoroughly revised and greatly enlarged. With 40 colored plates, 278 text-illustrations, and 410 pages of text. Philadelphia and London: W. B. Saunders & Co. 1902. Cloth, \$3.50, net.

The Saunders hand-atlases are too well known to need any introduction in general; it is sufficient to say for this particular number that it is in every way

up to the standard of its predecessors. In fact, it may rightly be said to have an advantage of most of them, consisting as it does of the translation of a small work which was written by a famous Vienna surgeon, a book which has been favored by a wide popularity on the other side of the water.

The author's long experience together with his well-known theoretical knowledge has enabled him to produce a volume which for its size is not excelled in this field. Of course, the hand-atlases do not pretend to rival the recent great works like those of Bryant in our own language, and others of similar caliber in German and French; however, they meet the wants of the student and average general practitioner. In fact, it was the idea of Prof. Zuckerkandl to write a book for students; hence, the operative surgery upon the cadaver is given especial prominence, while the great operations of the specialist receive but a brief description.

The illustrations, of course numerous from the very nature of the work, are of the well-known Saunders execution. The revised edition, from which our copy was translated, was found necessary to bring the subject-matter strictly up to date, and the Saunders house can surely be congratulated upon receiving the Zuckerkandl book into the list of the hand-atlases.

SOCIOLOGIC STUDIES OF A MEDICO-LEGAL NATURE. BY LOUIS J. ROSENBERG, LL. B., Associate of the Victorian Institute, London, England; Michigan Delegate to the American Congress of Tuberculosis (1901), etc., and N. E. ARONSTAM, M. D., Ph. G., Assistant in Chemistry and Dermatology, Michigan College of Medicine and Surgery, etc. With Introduction by Hon. Clark Bell, LL. D., President of the Medico-Legal Society. Pages, 142. Bound in red cloth. Price, \$1.00, net. G. P. Engelhard & Company, Chicago. 1902.

This collection of essays, dedicated rather fulsomely to Tolstoi, is interesting more on account of the title under which it is published than from the contents. It is very suggestive that popular essays dealing with such subjects as crime, the drink evil, euthanasia, premature burial, tuberculosis and the like, should have been published as sociologic studies. While this volume of itself is not a very marked contribution to the knowledge of the subject, yet the purpose underlying its appearance, which is manifestly that of bringing into closer touch the scientific side of such subjects with society at large, from which they originated, is to be commended.

NEUROLOGICAL TECHNIQUE. By IRVING AND HARDESTY. University of Chicago Press. 1902.

This is a clear account of the various methods employed in the microscopical investigation of the central nervous system. It is in some respects an improvement on the well-known book of Pollack, in that it gives Apathy's and Bethe's technique of the demonstration of the neurofibrillæ. It might be suggested that too great attention to details is of doubtful value in manuals of this kind, because every laboratory worker develops after a time his own special method, which are adapted to his own manner of working and which are not successful in the hands of others. This little book may be regarded as a valuable adjunct to the laboratory aids of the neuro-pathologists, and the care in its preparation is worthy of praise.

RECHTS UND LINKSHAENDIGKEIT. By FRITZ LUEDDECKENS. Wilhelm Engelmann, Leipzig. 1900. (G. E. Stechert, New York, Agent.)

In this work of some eighty pages an attempt is made to present a plausible hypothesis to explain the great preponderance of righthandedness among the

human race. The author approaches the solution of this problem in a manner which commends itself to the reader, even if his conclusions are not convincing. He begins by an anatomical-physiological introduction, as the result of which he divides all mankind into three groups: First, the great majority, in whom there is a higher blood pressure in the left than in the right side of the head; second, those rare individuals who have, presumably, the same blood pressure in both sides of the head; and, third, a minority, who have a higher blood pressure in the right than in the left side of the head. The sight and hearing, and the special senses are studied in each of these classes. In the second group the equal pressure in both sides of the head gives rise to double personality. It can be said that this monograph forms an interesting but an absolutely theoretical exposition of the subject. Its physiological data are its weakest part, and as the author draws most of his conclusions from them, they cannot be accepted. The book, with these reservations, will repay reading by those who have an interest in the subject.

INTERSTATE MEDICAL JOURNAL

PUBLISHED ON THE FIFTEENTH DAY OF EVERY MONTH BY THE
INTERSTATE MEDICAL JOURNAL COMPANY

W. B. OUTTEN, M. D., President.

O. F. BALL, M. D., Secretary

SUBSCRIPTION, \$2.00.

FOREIGN SUBSCRIPTION, \$2.50.

SINGLE COPY, 25c.

Subscriptions may begin at any time. Volumes end with issues of December.

Original Articles.—Articles are accepted for publication with the understanding that they are contributed solely to this journal. French and German articles will be received and translated free of charge, if found desirable for publication.

Reprints (200) of original articles will be furnished gratis to authors making the request, which must accompany the manuscript. Covers to these, and extra reprints, will be furnished at net cost.

Illustrations, such as plates, half-tones and zinc etchings, as in the judgment of the editors are necessary to illustrate articles, will be furnished when photographs or drawings are supplied by the author.

Rejected Manuscripts will be returned, if stamps be sent for this purpose.

Advertisements.—Advertising forms go to press on the 5th of the month, the JOURNAL being mailed on the 15th. Time should be allowed for composition of advertisements and

for the sending and return of proofs. Advertising rates will be sent on application.

Change of Address.—In ordering a change of address, it is important that both the old and new addresses be given.

Discontinuances.—The INTERSTATE MEDICAL JOURNAL is not discontinued at expiration of subscription, but is sent until an explicit order to stop is received or a notice sent by us. A large majority of our subscribers prefer not to have subscriptions interrupted and files broken in case they fail to remit before expiration. It is therefore assumed, unless notice to discontinue is received and the amount of back subscription paid to date, that the subscriber wishes no interruption in his series. Journals returned are not notice of discontinuance.

Remittances should be made by check, draft, registered letter, money or express order. Address all communications to INTERSTATE MEDICAL JOURNAL, Commercial Building, St. Louis, Mo.

Please mention INTERSTATE MEDICAL JOURNAL in writing to advertisers.